Clinical Lectures

DELIVERED AT GUY'S HOSPITAL

DURING THE WINTER SESSION 1865-66.

BY JOHN HILTON, F.R.S.

(*Arranged for publication by* Mr. GEORGE EASTES, *Surgical Registrar of Guy's Hospital.*)

LECTURE V.

Disease of the axis; pressure on the spinal cord; death; autopsy.

J. S——, aged twenty-one years, a labourer, was admitted on the 26th of May, 1865. He stated that he had been ailing for the last three months, with loss of appetite and general debility. He had, however, followed his employment. On Sunday, May 14th, he was stooping down to polish his boots on his feet, when suddenly he *felt and heard a sharp snap in the upper and back part of his neck, as if some one had struck him there.* About a quarter of an hour afterwards he became insensible, and remained so during half an hour. On the recovery of consciousness he had a stiffness and numbness at the back, sides of his head, and back of his neck, a sense of fulness in the throat, with difficulty in swallowing. At first there was no loss of power over his limbs, and but slight continued pain down the right arm.

On admission his head was fixed erect, and he had pain on the slightest attempt to rotate, flex, or extend the head. His lower jaw was partially fixed, so that he could not open his mouth wide enough to admit of a finger being passed in order to examine the pharynx. His voice was thick and guttural; deglutition not quite free, yet not attended by any great uneasiness. Externally, over the second cervical vertebra, there was a swelling—hard, resisting, and tender on pressure, evidently formed by the undue prominence or projection backwards of the spinous process of the axis itself. The tenderness was circumscribed by the axis; the parts all around were numb.

Treatment and progress of the case.—He rests on his back upon a hard bed, his head slightly elevated, a small sand-bag placed beneath the projecting spine, and the head maintained in a fixed position by two large sand-bags on each side of the head. He was ordered to take five grains of Dover's powder and three grains of mercury with chalk twice a day. To have full diet. The medicine was continued for about ten days, when his gums became slightly affected. It was then omitted. During a few days he had loss of power in his right arm. A marked improvement occurred in his general appearance, and more particularly in his special symptoms.

Thus till July 3rd he was gradually and steadily improving; he then had acute, apparently rheumatic, inflammation of the right knee and elbow-joint, followed in a day or two by a similar state of the left knee-joint. There was no evidence of pyæmia. The joints were blistered. He was treated internally with nitrate of potash and lemon-juice, and shortly recovered. The tenderness and other symptoms about the axis disappeared, but the undue prominence of the second vertebra remained. He expressed himself much relieved by the supine position in bed. He continued lying down upon his back as from the first, until nearly the middle of August, when, finding himself so well and free from pain, and all nervous symptoms having long disappeared, he was permitted to sit up, wearing a collar so made that it should fit round the neck and rest upon his shoulders so as to support the head. With this apparatus applied, he was allowed to get up; but after two days' trial the pain in his neck became so severe that he was obliged to resume his position in bed. He now complained of difficulty in swallowing and of pain about the back of the neck; the pain, however, could not be traced with precision in the direction of any nerve. The lower jaw, which for some time had been freely movable, now became again, as at first, almost immovable, leaving not more than half an inch of interval between it and the upper jaw. To resume the recumbent position, with the head secured by sand-bags as before.

Oct. 9th.—*He continues to emaciate.* Complains of pain over the left trapezius and left deltoid, in the course of the supra-acromial nerve. There is, however, no pain over the lower part of the pectoralis major. The displaced parts at the back of the neck have undergone a complete alteration in position since his former examination. The spinous process of the axis is now but a little more prominent than natural, and there is not, as formerly, any depression perceptible above it. He complains of some loss of power over the left arm and leg.

Is placed, at his own request, upon his left side; a pad is inserted beneath the lateral hollow of the neck, and large sand-bags laid at the back of the head, with a pillow to support his back. Full diet.

23rd.—Has since continued in the above position. At first he seemed considerably relieved by the change, slept better, and took nourishment well. For the last few days, however, he has had a return of the pain in and about his neck, and he suffers from extreme restlessness. There is now loss of power in both arms, especially the right; he can just raise his hands to his head, but cannot grasp anything. Sensation not diminished. No dyspnœa; but he is occasionally disturbed by shooting pains starting from his neck, and running all over his shoulder. Sleeps well. Less difficulty in swallowing than formerly.

26th.—Both arms weaker, and he complains that the left is the more affected. At half-past two P.M. he is seized with a feeling of stiffness all over his body, brought on (he thinks) by moving his head. He is very carefully turned in bed from his side to his back, with his head and neck supported as formerly. At four P.M. he is much easier, and has more control over his limbs. He died at midnight, without convulsion or fit of any sort.

Sectio cadaveris, fourteen and a half hours after death.—Head: On reflecting the scalp, a round rough swelling was found on the left frontal eminence, one inch in diameter, two lines in height—an exostosis, the result of an old inflammation. In the left superior occipital fossa, about one-third of an inch from the lateral sinus groove, was a deficiency in the bony wall of the skull, half an inch in diameter, closed by membrane, its edges beveled gradually and quite even. The parts in the middle line of the cranium were quite perfect. —Brain: Convolutions flattened; membranes thin; visceral arachnoid opaque. Brain-substance below average firmness; parietes of ventricles firm; cavities all considerably dilated by fluid within them, so that the cornua of the lateral ventricles were round on section. Foramen of Monro very large; intra-ventricular cerebro-spinal fluid not perfectly clear. The under-surface of the medulla oblongata did not show its usual distinctness of parts; it looked swollen, and was soft within, so as to adhere to the finger when touched. Microscopic examination failed to show any appearance characteristic of inflammation; but the small arteries in the pia mater of the medulla were lardaceous.—Vertebræ: On removing the muscles attached to the arches of the vertebræ and sawing through the laminæ, the spinal canal was laid bare. The dura mater was then divided up the centre, and the cord removed by cutting through the anterior and posterior branches of the various cervical nerves. The spinal canal behind the atlas and axis was narrowed antero-posteriorly, and tightly embraced the cord. No movement of the parts served to relieve the cord of this flattening pressure; in fact, an even fusiform swelling extended down the anterior wall of the spinal canal from the occiput to the third cervical vertebra. On dissecting the dura mater (which normally is but loosely united to the common posterior ligament of the bodies of the vertebræ except at its upper part) it was found blended with the ligament, and formed, from the axis upwards, this swelling; the posterior common and the occipito-axoid ligaments were almost completely destroyed, being represented by a few scattered bundles of fibres. On making a vertical section through the swelling, it was found connected with carious bone; it formed a kind of sac, and was composed superficially of a considerable quantity of effused lymph, firm and hard, interiorly softened and yellowish, and containing small portions of dead bone. The articulations between the occiput and atlas were perfect. The left atlo-axoid articulation was healthy; but the right one was diseased, the articular cartilage being almost entirely destroyed and its contiguous surfaces of bone rough. The odontoid process was separated from the body of the axis, and firmly held in connexion with the atlas and occiput by the transverse and check ligaments, which were entire; the upper part of the process was healthy, but the lower part was carious and suspended free within the cavity of the fusiform swelling above described. The body of the axis was carious, and only held in connexion with the

lateral portions of the bone by the adjacent soft parts. The body of the third vertebra was affected, and also the intervertebral substance between it and the axis; the other articulations between the axis and third vertebra were perfect. The vertebræ below this point were healthy On removing the muscular attachments from the anterior faces of the vertebræ, a fusiform swelling was found to project forwards, forming the anterior boundary of the abscess connected with the diseased axis; it must, in the normal position of the parts, have encroached upon the pharynx, which, however, was not structurally injured. Close to the right atlo-axoid articulation was an enlarged and hardened lymphatic gland, or another mass of inflammatory lymph.—Spinal cord: The cervical portion of the cord appeared to be healthy, and unaffected by the disease in the neighbourhood.—Lungs: Hypostatic congestion with a good deal of softening at the posterior parts. Bronchial glands enlarged.—Heart: Muscular substance firm and dark, and contracted firmly; no clots in either cavity; dark fluid blood. —Alimentary canal: Pale and thin walled. A piece of the jejunum, taken without choice of part, was found, when treated with a weak solution of iodine, to be highly lardaceous as far as regards the arteries and capillaries of the submucous and the mucous coats. The villi also became very dark.—Liver: Weight, seven pounds fourteen ounces. Was an extreme instance of lardaceous disease.—Spleen: Large, firm, and also lardaceous.—Kidneys: Large and pale; mottled on surface and on section. Capsule not adherent. The points of the Malpighian pyramids white and very much affected with lardaceous disease; the cortical part unequally so—in some parts excessively, and in other parts so slightly as to escape naked-eye observation.

Observations.—Mr. Hilton commenced by a reference to the anatomical relations of the occiput, atlas, and axis, dwelling principally upon the arrangement of the ligamentous structures uniting them, and especially noticing the strong check and transverse ligaments which retain the odontoid process in position, allowing of free mobility of the parts, and yet rendering them so strong that the medulla oblongata, the portion of the nervous system most important in relation to animal life, is safely lodged just behind the odontoid process. He then continued as follows:—

The medulla oblongata, gentlemen, is the point whence emanate the impulses necessary for the respiratory movements, and its integrity is consequently essential to the life of an animal. Now, if the odontoid process be much and suddenly displaced backwards, it will press directly upon the medulla oblongata near its point of decussation, and is likely to kill the person instantly, as when an animal is intentionally "pithed;" but if the pressure be gradual, or not sufficient to kill, various symptoms (as in the above case) are produced, their severity being proportionate to the amount of pressure. It has been demonstrated by pathological specimens that the area of the spinal canal within the atlas may be diminished by two-thirds of its extent, provided the diminution be slowly effected, without giving rise to any alarming or indeed marked symptoms of compression of the cord. This observation is based on several specimens. There is one in St. Bartholomew's Museum, described by Mr. Lawrence, where the area of the vertebral canal opposite the axis was, after death, found to be only one-third its normal size. Anchylosis had taken place between the surrounding vertebræ, showing that the man must have lived for some months, or perhaps years, after the diminution of the calibre of the canal had occurred.

Our patient, a report of whose case I have read, had been ailing for three months before admission, with loss of appetite and other general symptoms; but there was no local sign indicative of disease of the spine previous to May 14th. He may have had mischief about the upper part of the spine before that time, yet there was no recognised evidence of it. No doubt his accident on May 14th was a fracture of the neck of the odontoid process, so that it became separated from the body of the axis, and remained united by ligaments to the occiput and atlas. We will now go into an analysis of the symptoms.

On the man's admission, the spinous process of the axis projected in a most abnormal manner at the back part of the neck, clearly indicating that something had given way, allowing partial dislocation of the second vertebra backwards. The most usual kind of accident in this neighbourhood, associated with displacement of the odontoid process, results from a rupture of the transverse and check ligaments, which allows the axis—odontoid process and body—to become displaced backwards; but with such an injury, and with as much displacement as was found in this case, death would have been instantaneous, the odontoid process pressing directly upon the medulla oblongata. It did seem to me almost inexplicable that the man did not suffer more, considering the great deformity, which implied that some fracture and luxation had occurred (abruptly), whilst those symptoms ordinarily associated with rupture of the transverse and other ligaments were not present. We now know, from the post-mortem examination of the body, that the odontoid process was left in its normal situation united to the occiput, whilst the rest of the vertebra dentata had been dislocated backwards. This kind of accident would not diminish the calibre of the spinal canal so much as if the odontoid process had been thrust obliquely backwards with the rest of the axis; hence the comparatively little urgency in this case of symptoms referable to pressure on the medulla. The first symptom noticed is want of consciousness, which came on about a quarter of an hour after the accident, and continued for half an hour. The pressure on the medulla oblongata, which produced a partial loss of function in the pneumogastrics, probably impeded the action of the lungs to such an extent that the due oxygenation of the blood did not take place; venous blood consequently circulating through the brain gave rise to insensibility. The patient was then probably made to lie down, and the pressure of the displaced bone being thereby taken off the medulla (as I shall presently show you it is in the recumbent position of the body), the lungs could again oxygenate the blood, and the brain recover its sensibility. After his return to consciousness he complained of numbness and stiffness at the back and side of the head and back of his neck, which depended on the occipital nerves (attached to the spinal canal at the seat of injury) being stretched and otherwise implicated. The numbness, depending on defective nervous supply, was referred to the periphery of the nerves.

What produced the difficulty in swallowing? The glossopharyngeal and pneumogastric nerves arise from the medulla, which is their centre of force; this being slightly compressed, these nerves performed their functions imperfectly, so that the muscles of the pharynx became partly paralysed: hence, probably, the difficulty experienced in swallowing. The vagus nerve modifies the voice by supplying the muscles of the larynx, and to this derivation of the nervous force of the laryngeal muscles may be attributed the thickness of speech which troubled our patient. As regards the partially fixed state of the lower jaw, I have been seeking for an interpretation that will satisfy myself. It was undoubtedly caused by muscular contraction, and was probably equivalent to the trismus that occurs in tetanus. Why does this symptom occur so early and so decidedly in tetanus? The sensitive portion of the fifth nerve extends and can be traced into the spinal marrow, where it is intimately associated with the grey matter of the cord. That portion of the marrow is the part affected in tetanus; and I am of opinion that the spasm of the muscles of the lower jaw (all supplied by the fifth nerve) which occurs as a constant symptom of tetanus is due to this close union of the fifth nerve with the grey matter of the cord. Perhaps I may be rather straining the point when I give the same anatomical relations as the cause of the "fixed jaw" in this case; but I can see no other explanation which is satisfactory to my mind. The interpretation may not be the true or the only one: think it over for yourselves, and if any of you discover a more logical reason for the spasm of the maxillary muscles in this case, I shall be delighted to acknowledge its greater claim upon our attention. Indeed, you ought and must habituate yourselves to analyse or unravel the causes of all the symptoms of any case; it is a capital mode of training the mind, and unless you do it you cannot hope to treat your patients in a satisfactory or scientific manner.

The man, admitted into the hospital twelve days after the accident, carried his head fixed, and complained of pain as soon as an attempt was made to move it in any direction. What was the cause of the fixed state of the head? Nature wanted a splint to keep the parts at perfect rest, in order that anchylosis or some other mode of reparation might take place, and the muscles of the neck which move the spine were kept by reflex action (exerted through the cord by the nerves in which was the pain) in a state of constant contraction. An exactly similar phenomena is exhibited in disease of the knee or any other joint of the body. The sensitive nerves of the articulation become hyperæsthetic from the inflammation; they transmit abnormal sensations to the cord, which are reflected by the motor nerves to the muscles acting on the diseased joint; the muscles are consequently kept spasmodically contracted, and the joint becomes fixed.

I will now speak of the treatment. We thought the man had fracture, or separation of the odontoid process from the

rest of the axis. The point was to obtain permanent anchylosis between the fractured or diseased parts, and also to prevent all the symptoms referable to pressure upon the medulla oblongata. To this end we laid the man flat on his back in bed, and placed a thin sand-bag beneath the nape of the neck, in order to keep the body of the axis well forwards and prevent its falling upon the cord. We further placed heavy sand-bags on each side of the head to prevent all lateral mobility, and to ensure perfect rest, so as to permit nature to cure the disease. But you must keep the patient lying flat on his back, and not allow a thick pillow to be placed beneath his head, so as to raise it and throw it forwards; because in such occurrence the patient may be at once killed (as I before remarked) by pressure on that part of the cord whose integrity is essential to animal life. The necessity for this preciseness of detail will be at once apparent when you look at these anatomical diagrams exhibiting the relations of the parts affected.

The patient shortly after admission had temporary loss of power in the right arm. What does this mean? Not softening of the cord, but temporary pressure on the marrow. Where the paralysis goes on increasing without intermission, you may be quite sure the cause, whether from without or from within, is also extending, or that probably organic change in the marrow, such as softening, is taking place; but where the paralysis is temporary, the cause must be temporary also, and is probably simply pressure. In the present case the temporary paralysis in the right arm was probably produced by pressure at the seat of injury on the anterior part of the cord by the bone (or by the abscess); but, however produced, it shortly disappeared.

I shall not refer to the inflammation in the larger joints further than to remark that it was not pyæmic, but of a true rheumatic type. He was liable to rheumatic fever, and had had several previous like attacks.

In the middle of August—that is, about twelve or thirteen weeks after the accident,—his condition being much improved and relieved of all its urgent symptoms, the patient also expressing confidence in himself, and being desirous of sitting up, I allowed him to do so, wearing a collar, so as to keep his head quiet. Two days afterwards he was suffering so much pain in his neck that he was forced to go again to bed with his useful sand-bags in their old positions. It is plain to myself that I allowed him to get up too soon. How long, then, ought such a patient to be on his back? I think four or five months not at all too much. I have seen such bad effects ensue from premature attempts to get about in this kind of case that I deem it much better to be on the safe side, and to keep the patient a little too long than too short a period in bed. The public entertain peculiar ideas concerning the effect of lying in bed for a long-continued period; they imagine it necessarily makes a man thin and weak. Now, mere lying at rest on a couch or in bed will not make a man thin; in fact, you see the very contrary of all this in the wards—viz., that when patients are lying in bed without exhausting accidents or disease they become quite fat. Carry this observation to the bedside, and if you see your patient fat and plump, you may be quite sure he is healthy; if, on the other hand, he wastes and continues to emaciate, you may be sure he has visceral disease, or that he suffers from some exhausting cause. My patient became much emaciated during his stay in bed. From this I was led to suppose he had visceral disease, that his digestive organs and organs of nutrition generally were at fault. Such turned out to be the case.

On October 9th he complained of pain in the course of the left supra-acromial nerve, over the trapezius and deltoid muscles. This is a branch of the third cervical nerve, which had become implicated in the suppuration found between the posterior common ligament and the bodies of the upper cervical vertebræ. At this same date all the unnatural projection of the axis had disappeared from the back of the neck; the head and atlas had recovered their normal positions as regarded the axis. Hence there was then no vertebral deformity; but there was no firmness or consolidation of the neck. The former was a favourable, the latter an unfavourable, feature in the case. In one sense it appeared to look well for recovery that the axis could go back to its normal position; but the mobility or want of fixity about the atlo-axoid joints admitted the fact of defective reparation, for although the man had been kept quiet during four months and reparation had not been established, his neck had not grown stiff (as we hoped it would have done) by the bones becoming anchylosed.

A fortnight afterwards we find him suffering from much pain in and about the neck, with extreme restlessness. These symptoms pointed to deep-seated mischief near the cord; and the loss of motion, with no corresponding diminution of sensation in the arms, demonstrated pressure upon the anterior part of the marrow. Putting these symptoms together, we concluded that suppuration was taking place in the anterior part of the spinal canal—as turned out on the post-mortem table to be the case. He died five months and a half after the occurrence of the sudden snap in his neck.

Time will only permit me to glance at a few of the most prominent points that were discovered at the post-mortem examination. The deficiency in the occipital bone, which was closed by membrane, was in all probability congenital, but it might have been the result of injury. The convolutions of the brain were found flattened. The cause of flattening must necessarily be either from without or within the brain. If, on opening the skull, you see flattening of the cerebral convolutions, and no suppuration, tumour, or a clot of blood on their surface to account for it, you may be quite sure that the pressure has been exerted from the interior of the brain—as by inflammation and consequent swelling, or an accumulation of fluid in the ventricles, or some such cause. In the present instance it was occasioned by an over-abundance of intra-ventricular fluid, which dilated the ventricles and exerted a centrifugal pressure upon the brain. Why this state of things? Occlusion of the cerebro-spinal opening, due to the altered direction backwards of the medulla oblongata, produced by the dislocation backwards of the body of the axis, might have caused, and was possibly the origin of, this condition of the ventricles and their contained fluid.

I do not know that I have anything particular to say in reference to the disease about the axis. You can see the specimen now on the table; it is going to the museum of the College of Surgeons. The report of the condition of parts is accurate and complete. You may see that the surfaces of bone forming the right atlo-axoid articulation are denuded of cartilage, and rough. On each the thick lamella of bone which always underlies articular cartilage has not become disintegrated; but it must become so before anchylosis can occur; for bony union can only take place when the cancellated portions of two bones come into contact—never whilst these dense, comparatively bloodless laminæ intervene between the cancellous interiors of the two bones. Upon this ground, then, you will see that anchylosis between the atlas and axis of our patient, had he lived, could not have occurred for some time to come. Between the time of removal (by absorption) of the cartilage and anchylosis of the bones in any joint of the body there must be a period when the dense laminæ of bone on which the cartilage is placed must rub against one another, giving rise to the harsh grating sensation which occurs also in necrosis: so that if you at this period move the ends of the bones and obtain the sound, you cannot tell whether necrosis or anchylosis is to be the final result. By further examining this pathological specimen, you will perceive that all the lower part of the body of the axis is dead and loose. It was consequently capable of slightly compressing the cord; and in this you perhaps have an explanation of the temporary symptoms of paralysis which occurred at one period during life. Their temporary character showed conclusively that they were due, not to softening of the marrow, but to some temporary removable condition.

Finally, the conclusion we must arrive at is that no stooping would have produced the separation of the odontoid process from the body of the axis (as occurred to this man on the 14th of May), provided the bone had been healthy. The lardaceous disease of the viscera, to which there was perhaps added lardaceous disease even of the minute capillaries of the body, might have induced disease of the axis; and then the slight extra strain upon the part occurring in the act of stooping might have caused the fracture of the odontoid process.

RIVERS POLLUTION COMMISSION.—Her Majesty's Commissioners, Robert Rawlinson, Esq., C.B.; John Thornhill Harrison, Esq., and Professor J. Thomas Way, have recommenced their labours in the basin of the Yorkshire Ouse, and are now holding an inquiry at Wakefield relative to the state of the river Calder and its tributaries—viz., their pollution by town sewage and refuse from manufactories; obstruction by solid refuse from manufactories; nature and extent of manufactures carried on upon the banks of the rivers and streams; cause and extent of flooding upon adjacent lands; water-supply, especially as affecting the river and streams. The Commissioners will afterwards hold similar inquiries at Huddersfield, Leeds, Bradford, Halifax, and other towns on the rivers Aire and Calder.

ON THE

TREATMENT OF PULMONARY CONSUMPTION BY HYGIENE, CLIMATE, AND MEDICINE.

BY J. HENRY BENNET, M.D.

(*Continued from page 435.*)

THE RESULTS OF MODERN TREATMENT.—PROGNOSIS.

Acute Phthisis—General Phthisis—Chronic Phthisis—Phthisis among the Rich—Phthisis with Complications—Scrofulous Phthisis—Localised Phthisis—Phthisis of the Aged—Gouty Phthisis—Phthisis among the Poor.

HAVING now briefly analysed the nature of pulmonary tuberculosis, and described its treatment by hygiene, climate, and medicine, I am desirous, in conclusion, to say a few words on the results obtainable, in accordance with my experience, by the employment of these means.

As I have already stated, by combining the various agencies which I have described, and which constitute what I have termed the modern treatment of phthisis, many patients may be and are saved; but many still die, and must ever die. The question I now purpose investigating, as far as possible, is: who are those who may live, and who are those whom all the resources of our art are unable to rescue from death? The answer to this question can only be approximated by referring to the laws of general pathology, by analysing the type of the disease, the circumstances under which it was generated, its stage of development when discovered and first treated, and its complications.

All diseases are greatly modified in their symptoms and progress, as also in the results of the treatment to which they are subjected, by the form or type which they assume from their first development, and none more so than pulmonary consumption. This disease may be acute or chronic.

In the acute type phthisis may run through all its stages in a few weeks or a few months. I have known patients seized with a series of febrile symptoms, having all the appearance of typhoid fever, and die in four or five weeks. On a post-mortem examination the lungs have been found full of miliary tubercles. No treatment has or can have any influence whatever on the termination of such a case; the patient is destined to die from the first day. In other equally fatal cases of acute phthisis, although the disease does not assume the form of a continued fever, and occupies several months, instead of several weeks, in passing through its successive stages, there is no lull whatever, no interval of arrest. The lung-tissue is progressively invaded by tubercular exudation, which rapidly softens, so that both lungs soon become a mass of advanced disease, and the patient dies without the disease having experienced any remission. What can medical science, climate, or hygiene do in such cases? Most surely is such a disease a mere mode of dying. Indeed, it is a question whether the most active and judicious treatment much retards the fatal issue.

Acute phthisis is much more frequently seen in youth than in middle or advanced age. The disease participates in the vigour and energy of the vital functions in early life. I consider it to be the evidence of a profound and final decay of vital power—so profound that there is no effort whatever made by the economy to contend with the evil that attacks it. The cause of acute phthisis must be sought for in the exaggeration of all the causes, hereditary and social, that produce the disease, and perhaps in their concentration in the same individual. Thus I have repeatedly witnessed it in persons who, with the hereditary predisposition or taint, have been exposed to extremely unfavourable hygienic conditions—town life, bad and scanty food, contaminated atmosphere, and great sorrows and cares.

Next in gravity to acute phthisis is the type of the disease in which the tubercular formation takes place, not in isolated patches, but all over both lungs simultaneously, at the apex, in the centre, and at the base. If the patient dies from other disease in the early stage of this form of phthisis, the lung is found studded with crude tubercles in its entire extent. When they soften simultaneously as they often do, the secondary bronchitis is generally severe, and the constitutional symptoms are very marked.

There are many degrees of intensity in this type of the disease; but the more the case recedes from tubercular development localised at the apex, the favourable type for treatment, the more serious is the prognosis.

When phthisis assumes the chronic type, as is generally the case, most fortunately, an unfavourable form for treatment is that in which disease shows itself in the midst of very favourable hygienic and social conditions. If a poor sempstress, half starved, made to work eighteen hours out of the twenty-four in a polluted atmosphere, living in a state of constant mental depression, becomes consumptive, common sense tells us that the disease may have manifested itself from the action of removable causes. If she can be placed under more satisfactory hygienic and social influences, she may therefore, and often does, recover. But if, on the contrary, the disease appears in one who has been bred and nurtured in the lap of luxury—who has known no hardship, no privation, no sorrow—of course the prognosis is more unfavourable.

It must be more difficult to arrest the progress of disease in such cases, for probably the cause is some strong hereditary predisposition, some defect originating with the progenitors, or some defective condition of individual innate vitality. It is in such cases, more especially, that everything should be done that is humanly feasible to arrest the disease, that no agency should be left untried that can possibly rouse the vitality of the patient. It is in such cases that he or she should be at once removed from the social medium in which the malady has been generated, in the hope of counteracting some unknown, unrecognised, and yet powerful home antagonistic influence. A change of climate is of inestimable value with these patients; indeed, it may be the only chance of arrest or recovery. Everything that is done, likewise, should be done from the very first; no time should be lost, for the foe is a most formidable one from the onset of the attack.

A class of cases still more inamenable to curative treatment is that in which there are serious complications present. Phthisis not unfrequently comes on in persons advancing in age, between thirty and sixty, who have led a hard life, who have taken large quantities of stimulants, and have exhausted perhaps an originally good constitution by excesses of various kinds. With them the stomach is generally out of order, the liver is often diseased, and sometimes the kidneys. What can treatment do in such cases? The disease may be considered a general break-up of the constitution, and the most judicious and persevering treatment seldom does more than retard the fatal termination.

Again, phthisis may attack at puberty those who during childhood have suffered from scrofula. This is a grievous and serious complication, but by no means so unpromising as those just described. Tuberculosis, or tubercular exudation, affects different organs at different periods of life. In infancy and early childhood it more especially attacks the meninges and the mesentery. In childhood and until puberty it attacks, in preference, the glandular structures of the neck, the extremities of the long bones, and the spongeous tissue of the bones in general, giving rise to the diseases of the articulations and bones which characterise scrofula. In early life, during my Paris career, I had charge for two years of a scrofulous ward of eighty young females, from fifteen to twenty years of age, in the hospital of St. Louis. They had nearly all glandular swellings, with or without scrofulous disease of the bones, ankles, knees, elbows, and a sad assemblage these poor girls were.

On several occasions I carefully examined the lungs of all my young patients, for I was publishing the clinical lectures of my master, the celebrated Dr. Lugol, and was much interested in everything connected with the pathology of scrofula. He wished to establish the connexion between scrofula and pulmonary consumption, and I found the evidence of localised tubercular deposits in the lungs of many of these scrofulous girls. The tubercular lung deposits were met with more especially amongst the elder ones, and that often although the patient presented little or no evidence of their presence. Dr. Lugol told me that he had long found this to be the case with his young scrofulous patients. When death, through accidental disease, afforded an opportunity for post-mortem investigation, the development of tubercles in the lungs of scrofulous youths was much more frequently observed in those who were arriving or had arrived at puberty than in those who were younger. Such tubercular exudations often remain crude and dormant for years, but when they assume a more rapid development and soften, the previous existence of scrofulous disease stamps the case as serious, although not necessarily as fatal. In these patients phthisis seems to appear, in its pro-

gressive form, as a species of climax to the antecedent tubercular or scrofulous affection. The crude tubercles which coexist with scrofulous disease in the young, in the latent form, are no doubt often present without giving rise to any symptom, and they may be subsequently absorbed and the patient may recover without their presence having been even suspected.

The more favourable type of phthisis, that in which rational treatment is the most likely to arrest the progress of the disease, and even to effect a cure, is that which may be termed accidental phthisis, in a chronic form, localised to the upper regions of the lungs. In this type of the malady there is no very decided hereditary taint, the patient is not born of very aged or very sickly parents, and does not present very serious complications in other organs, the evidence of a thorough and irremediable break up of constitution. Again, the disease generally manifests itself under unfavourable hygienic conditions, under the influence of overwork, sedentary town life, or harass, care, and anxiety. Sometimes in the most apparently luxurious and easy-going life some of these influences may be at work, so that appearances must not always be trusted. The habits and general life of persons moving in the highest circles, and having within their grasp every comfort, may be unhygienic. Moreover, they may be a prey, like humbler mortals, to cruel cares, none the less felt for not being recognised. Their nights may be sleepless, their days without joy; disappointed affections, social ties, or ambition may deprave digestion, and pave the way to the inroads of disease. In all such cases we may reasonably hope that the old saying, "Sublatâ causâ, attolitur effectus," may be verified. If we can remove *all* the causes that are depressing vitality, and the disease is in an early stage of its development, we may hope firstly to arrest its progress, and secondly to effect a cure, and that at any period of life short of extreme old age.

Pulmonary phthisis in extreme old age—not so rare an affection as is generally supposed—appears to me an all but incurable form of the disease, a mere mode of dying. I saw a number of cases of this form of consumption in the year 1840, when in medical charge of the infirmary of the Salpêtrière Hospital, Paris. This infirmary is fed by a population of 3500 old infirm women, between 65 and 100, all living within the walls of this magnificent institution. The disease assumes the form of chronic bronchitis, but is characterised, besides the stethoscopic and percussion symptoms, by a most unearthly degree of emaciation. In no other disease have I seen patients live in such a ghastly state of emaciation. They become at last like living mummies—nothing, literally, but skin, bone, and "concealed" organs.

There is a form of phthisis, of which I have seen a good many examples, although it is not generally described. It may be termed gouty phthisis, and the prognosis, I consider, is rather favourable than otherwise, especially in its early stage. Consumption and gout are considered by many physicians to be antagonistic, but experience has proved to me that such is not the case; and the discrepancy between the theoretical and the practical view admits, I think, of easy explanation.

Gout develops itself, primarily, in persons of healthy, robust constitution, who live generously. Their digestive system being good enables them to take and assimilate a considerable amount of nitrogenous food, and of stimulants, which appear to be the cause of gout developing itself. These people—the primarily gouty—do not become consumptive, for their vitality is high and antagonistic to a disease of debility.

But when such robust gouty people, who have themselves developed gout in their organization by a luxurious existence, marry late in life, as they often do, and have children, they do not generate children healthy and robust like themselves. Their children are often delicate, without being positively unhealthy; they have weak digestions, and suffer all their life from what may be termed gouty dyspepsia. If their organization is not much tried they get through life very well, and may reach old age, even when suffering more or less from low forms of gout. If, on the contrary, they are much tried, body or mind—if they are placed for a continuance under unfavourable hygienic conditions, they fall below par, are liable to suffer from inflammatory affections of the aërial passages, which become chronic from lowness of general tone, and the deposit of pulmonary tubercle may follow. As I have stated, I do not think this form of phthisis an unfavourable one for treatment, for the constitution received from the parents is often originally a good one, merely weak and tainted with the low type of gout. There is often great latent vitality to work upon. My own case is one of this kind.

An all-important element in estimating the probable result of treatment—in forming a prognosis, in a word—is the extent of lung diseased when the patient is fairly brought under rational treatment. I often familiarly compare the lung attacked with tuberculosis to a large house on fire. The fire may begin in the servants' rooms or garrets—that is, at the top of the lung, the most frequent original seat of tubercular deposit. If it can be put out before it has extended to the story below, but little inconvenience is afterwards experienced by the owner of the house. He can live very comfortably in it under ordinary circumstances, only feeling that there is "less room" than formerly on extra occasions, such as visits from friends. If the story below, or the two stories below, are destroyed before the fire is put out, he feels more or less inconvenience in his "daily" life, but still he can get on. But when all the house is destroyed except one room, or the cellars, it becomes quite impossible for him to live in it by any amount of contrivance. Moreover, it is all but impossible to save even that one room when the fire has reached this point.

So it is with the lungs, which are not renewed, restored, when once destroyed; for we do not renew our organs as lobsters are said to renew their lost claws. Once a portion of the lung is destroyed, it is destroyed for ever, and its functions must be carried on by the healthy remainder. The only limit to curability therefore, in my opinion, is the fact of there remaining a sufficient portion of healthy lung to carry on the functions of hæmatosis once the progress of the disease is arrested. The amount of healthy lung-tissue compatible with life evidently varies in different individuals according to their vitality. One lives long on a bit of healthy lung no larger than a small apple; another dies with even less than that in a state of disease.

The first and all-important point, therefore, is to arrest the progress of the disease, as it also is to arrest the fire in the house. Unless that can be done, in the one and the other case, the entire tenement will be destroyed, more or less rapidly. The living in the damaged tenement afterwards is a matter of adaptation; and it is wonderful what either nature or man can and will do to adapt themselves to altered circumstances. We must also bear in mind that the more the fire or the disease has progressed, when it is first discovered, the more difficult it always is to arrest it.

(To be concluded.)

OBSERVATIONS IN THE MILITARY HOSPITALS OF DRESDEN.

BY ALEXANDER BRUCE, M.B., F.R.C.S.,
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(Concluded from page 361.)

I PROPOSE to conclude this brief account with a few reports of some of the most interesting cases that occurred at the hospital.

CASE 1 (under the care of Dr. Mænnel).—A Prussian struck in the root of the neck on the left side by a round ball from the bursting of a Saxon shrapnel or canister-shot; the ball measured about half an inch in diameter. On admission, the patient had much stiffness and pain on moving his neck, and kept his head inclined to the right side. He subsequently had pain in his back, dulness over his left lung, and extreme difficulty of breathing. It was believed that the ball had entered the thorax. He died with evident signs of pyæmia on July 21st, having received his wound on the 3rd.

Post-mortem examination.—The track of the ball was carefully examined, and it was found to have entered the posterior triangular space of the neck a little anterior to the margin of the trapezius, to have passed thence behind the sterno-mastoid, behind and very close to the jugular vein, vagus nerve, and carotid artery to the sixth cervical vertebra, in the body of which it remained impacted. The posterior surface of the œsophagus had been almost grazed by the ball, and there was an abscess in the cellular tissue between it and the spine, running down to about the second dorsal vertebra, and containing the remains of a blood-clot mixed with purulent fluid. Inflammation had extended through the intervertebral substance to the bodies of the fifth and seventh cervical vertebræ. The left lung presented the first stage of hepatization throughout its

lower lobe, and the right lung was intensely congested. Both lungs presented numerous metastatic abscesses scattered over their surfaces, varying in size from that of a pin's head to that of a filbert; evidence of a slight recent pleurisy on the left side. Other organs normal. No abscesses in liver, spleen, or kidneys. In this case it is highly probable that the system became affected through the veins of the vertebræ, as the external wound was insignificant in size, and the abscess had not implicated any important structures. The patient had not been exposed to any special risk of pyæmic infection, as no cases had occurred in his immediate neighbourhood. Unfortunately a few days after he had exhibited unmistakable signs of pyæmia, two other patients in the adjacent beds became affected. The preparation of the vertebra is in the museum of University College.

CASE 2 (under Dr. Brinkschulte.)—A Prussian received, on July 3rd (battle of Königgrätz), a wound in the left gluteal region in an oblique direction, from a Saxon bullet. He felt at the moment of being struck as if the whole of his leg below the knee had been carried off, suffering intense pain in this part. It was some time before he could realise that he had not lost the greater part of his limb. He remained completely paralysed in the left lower extremity till his death on the 24th, which resulted from exhaustion and profuse suppuration. Injury to the sciatic nerve was diagnosed.

Post-mortem examination.—The aperture of entry was situated at a spot in the left gluteal region corresponding to the level of the third sacral vertebra, and at about two inches and a half from the middle line. From this point the track of the bullet was traced in a direction obliquely outwards and downwards, and was found to pass through the outer quarter of the sciatic nerve, the whole thickness of which was much bruised and blackened. It then entered the neck of the femur, through the whole length of which it passed, emerging at the posterior and outer part of the root of the great trochanter, where the bullet was found lying immediately under the integuments. (See Fig. 6.) On further examination it was found that the

FIG. 6.

neck of the femur was completely split into two parts, an anterior and a posterior part; the former carrying the head, and the latter, which was incomplete in consequence of the loss of some loose fragments, remaining attached to the shaft. In the sketch the posterior fragment has been turned outwards to exhibit the fractured surfaces, and some small fragments from the posterior surface near the head have been turned downwards. Inflammation had extended into the hip-joint, the head of the femur being completely denuded of cartilage, and the ligamentum teres grey, soft, and shreddy. There was extensive suppuration around, and a blackish-grey fetid matter was burrowing deeply amongst the muscles of the thigh.

The ball was but slightly altered in shape, appearing bruised on one side only. It must have been fired at a very short range, as the tissues in its track presented the appearance of having been burnt with a hot iron.

The preparation is in the museum of University College.

CASE 3.—An Austrian, shot in the back on the 3rd July, and died on the 25th. No clinical history was obtained.

Post-mortem examination.—The bullet entered the body of the fifth sacral vertebra, and wounded the wall of the rectum in its passage towards the left side; here it struck and fractured the left innominate bone at a spot immediately external to the thyroid foramen, at the same time opening the hip-joint and bruising the head of the femur. From this point all trace of the bullet was lost; and as it certainly was not to be found even on careful search, it had probably fallen back into the pelvic cavity, and had escaped or been extracted through the aperture of entry. The cavity of the pelvis was filled with a dark grumous and very fetid fluid, mixed with broken-down blood-clots. An extensive effusion of blood had taken place under the peritoneum lining the pelvis, and under the serous coat of the sigmoid flexure of the large intestine. The left ischiatic and pubic bones were completely shattered, and numerous sharp fragments of bone were found lying loose in the cavity, whilst others projected into the muscles of the upper part of the thigh, where an abscess had formed. The hip-joint was completely disorganised, and the bones denuded of cartilage. The bladder was uninjured. The other viscera were not examined. This post-mortem was made on the floor under considerable difficulties.

CASE 4 (under Dr. Spitfner).—An Austrian, who received a bullet-wound on the 3rd July at a spot situate over the sixth rib, about two inches below and somewhat behind the right nipple. The patient died on the 25th, with symptoms of empyema and pneumothorax. He had had some slight peritonitis, and for a few days had had a slight icteric tint in his conjunctiva, but this had passed off. No other symptoms referable to the liver had occurred.

Post-mortem examination.—On making an incision through the wound, it appeared as if it did not penetrate deeper than the subcutaneous tissue; the rib was not fractured, and no canal could be traced inwards. At one spot, however, the tissue of the intercostal space appeared as if it was not quite normal. On opening the chest air escaped freely; and the right pleural cavity was found to contain a large quantity—about a quart—of reddish puriform fluid. The lung was found to be collapsed, dense, and airless, lying compressed against the spine, and bound down by firm adhesions. The pleura itself was thickened, and covered with a grey shreddy lymph.

On examining the wall more carefully, a rough fragment was found projecting from the inner surface of the seventh rib, from which a piece seemed to have been torn off. The diaphragm came in close contact with the parietes at this spot, and a hole was found in it, through which the finger could be introduced into the liver. A probe could be passed through the whole thickness of the organ, and be withdrawn at the under surface, where a sharply-cut hole, measuring about half an inch in diameter, existed. The diaphragm was firmly united to the upper surface of the liver. On laying open this canal, the condition represented in the annexed figure was found. (See Fig. 7, copied from a drawing made on the spot.)

FIG. 7.

The aperture of entry through the diaphragm measured three-quarters of an inch, and its edge presented the appearance of having been pushed inwards; that of the aperture of exit appearing, on the other hand, sharply cut and somewhat everted. The canal itself had a fusiform outline, being much wider in the centre than at the extremities. It contained a considerable quantity of a thick, grumous fluid, apparently consisting of altered blood, bile, and pus. The wall presented a very rugged appearance, being lined with loose portions of liver-substance, blood-clot, and with masses of biliary concretion exuding from the ends of the ducts. In the midst of these lay a fragment of bone, about an inch and a half long, exactly corresponding to the piece missing from the seventh rib. It had evidently been carried onwards by the bullet, and lodged in the liver-tissue. On tracing the canal further, it was found to pass behind the colon ascendens, through the fat surrounding

the kidney, and even grazing the capsule of the lower part of that organ. From this point the track was not so distinct, an abscess having formed and burrowed downwards along the sheath of the psoas, as far as the iliac crest. The ball must, however, have struck the body of the first lumbar vertebra, as this was fractured and presented an indentation, with fissures radiating from it. Here probably its course was arrested, and after lying some time in this spot it must have fallen against the wall of the colon ascendens, and have ulcerated its way into the gut, and so have been discharged per anum, as, in spite of the most careful search throughout the whole abdominal cavity, no further trace of it could be found. The coats of the intestine around the orifice were thickened and united together; the edges of the orifice presented much more the appearance of ulceration than of direct penetration. There were some adhesions between several coils of intestine, and here and there between them and the wall. No purulent peritonitis existed, and no fæcal extravasation had taken place. The symptoms had been almost entirely referable to the chest. Nothing of note was found in the other organs. The drawings and preparations are in the museum of University College.

CASE 5.—An Austrian shot in the abdomen on the 3rd of July. At first he had some severe peritonitis, which passed off; later he became intensely yellow, and died pyæmic on the 27th.

Autopsy.—The external wound was completely closed, and covered with a dry scab; it was situated at a spot two inches to the right and two inches and a half below the umbilicus. On opening the abdomen, there was found to be evidence of some slight general peritonitis, and of a considerable amount localized in the right iliac fossa; here the cæcum and the neighbouring part of the colon ascendens were bound to some coils of the small intestine by bands of lymph. At one spot the adhesions were firm, and appeared to be partly organized. On gently separating them, it was found that they served to close a hole leading into the colon at a point about an inch and a half above the ileo-cæcal valve. Directly opposite to this hole was another, effectually closed by the adhesions formed between the gut and the wall of the pelvis; on removing the intestine, an indented fracture of the brim of the pelvis was found, situated immediately above the sciatic notch, and from which two deep fissures extended upwards and downwards. Considerable extravasation of blood had taken place beneath the peritoneum, and some clots of blood, apparently freshly formed, were found in the pelvic cavity. The bullet was found lying embedded in these clots, but not in any way encysted; it was of course a Prussian bullet, and presented a distinct mark on its side where it struck against the bone. No fæcal extravasation had taken place.

CASE 6.—This case, although a suicidal one, and only indirectly connected with the war, presents so many points of interest that I venture to introduce it here. It illustrates well the results produced by the favourite mode of suicide in vogue at present amongst the Prussian soldiers.

A Prussian soldier of the 20th "Landwehr" regiment, a fine and very handsome man, shot himself through the eye in consequence of having received the melancholy tidings of the sudden death of his wife and three children from cholera whilst he was absent on duty in Dresden.

The ordinary method of suicide, which he adopted, is as follows:—The man loads his "zündnadelgewehr" in the usual way at the breech. He then drives down the barrel a small wad of cotton, pours water in until the barrel is about one-third full, and then drives in as far as the water a small cork or wad. Having prepared this enormous charge, this man must have looked down the barrel with his left eye, and pulled the trigger with his toe. Death must have been instantaneous; and at the post-mortem the following conditions were observed:—The face was burnt and blackened for rather more than an inch around the left orbit, and a little on the right side. The eyelids were but slightly destroyed, the edges only being burnt off. There was a wound in the scalp over the superior posterior angle of the left parietal bone, where the bullet had passed out. On removing the scalp, the entire left side of the calvaria was found to be completely smashed into small irregular fragments, varying for the most part in size from one to four square inches. The sutures were so much loosened that they could be separated without difficulty. Deep fissures in the bone extended across the base, through the ethmoid and sphenoid, and between the right parietal and occipital bones. The left cerebral hemisphere was simply a pulp of mingled brain substance, blood, and water. A large clot of blood extended into the right hemisphere, and down to the medulla and cerebellum. Such a remarkable comminution of the bones could only have been produced by the rending force of the water employed, as the bullet had evidently passed directly through the skull, and could not have caused such extensive mischief. (The preparation of the vault of the cranium is in the museum of University College.)

Amongst the many curious cases which occurred in the hospital, I may briefly notice two. First, a case of true senile gangrene, or mummification of the toes of both feet, occurring in a young Hungarian, probably under twenty-five years of age (beardless, and only just cutting his wisdom teeth), who had received a flesh wound in the upper part of his left thigh. The wound did not implicate the vessels, and pulsation could be felt in the tibial arteries. There was no evidence of early degeneration, no arcus senilis, no calcification of the vessels, and no evidence of valvular disease of the heart; the heart's action was, however, feeble. No history of ergotism could be obtained. The gangrene commenced in the toes of the left foot, and extended to the sole, and then attacked the great, middle, and little toes of the right foot. A distinct line of separation had formed. Secondly, a case in which a bullet had entered by the side of the anus, and escaped at the extremity of the penis, passing through its whole length. The patient died three weeks after the receipt of the injury from infiltration of urine.

Such is a brief outline of some of the more striking cases which occurred during my short stay at Dresden, and it will serve to indicate what a rich field there was for surgical observation, and for the study of those causes which add so largely to the fearful mortality of the battle-field. It is to be hoped that the Prussian Government will follow the example set by that of the United States, and issue as full and valuable a Report on the Surgery of the War.

THE

FUNCTION OF THE MUSCULAR COAT OF THE URETHRA.

BY HENRY THOMPSON, ESQ., F.R.C.S.,
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IN sending a few notes on the use of the endoscope last week (THE LANCET, p. 436), and in referring to Mr. Heath's remarks thereon, I purposely avoided any allusion in that paper to a statement which he made respecting the physiological function of the urethra, not wishing to include a discussion of two different subjects in the same column.

Mr. Heath says: "I have noticed in perfectly healthy urethras that there is a constant vermicular contraction of the wall of the canal, apparently passing towards the bladder; and this accounts for the well-known fact that foreign bodies in the urethra tend to pass in that direction."

I am compelled to believe that the movement of the vermicular contraction, which I have also seen, is precisely in the opposite direction; and also that foreign bodies have a strong tendency to pass outward to the meatus, and not inward to the bladder. The following examples of the tendency to locomotion outward in the urethra may be mentioned:—The expulsion of the few last drops of urine, and of all other fluids; the discharge of gonorrhœa would travel into the bladder, instead of to the external meatus, were it otherwise. The expulsion of injections as soon as permitted by unclosing the orifice of the urethra. The expulsion of a sound or catheter if not held in the canal. The spontaneous cure by nature of a large proportion of all the cases of calculus which occur, by the expulsion of the calculi when small enough to pass, not merely by the urine-current, but also when deposited in the urethra, by its vermicular motion forward; were it not so, stone in the bladder would be one of the commonest of human disorders. The passing of débris by the urethra after lithotrity in the same manner, which I see every day. The issue of a piece of cotton left by the tube of the endoscope; otherwise it would be dangerous to use cotton in that instrument. I prefer tiny sponges attached to fine wire. Many other illustrations might be noticed; but these suffice.

The bodies which occasionally find their way into the bladder are bits of bougies, of which the rounded part is towards the bladder, and the rough or broken part towards the external meatus, so that they cannot move otherwise than towards the

bladder, and do so in spite of the vermicular motion outward. Again, ears of barley or rye have been introduced with the spikes lying in a direction outward, in consequence of which they soon traverse the canal and arrive at the bladder. The same object will travel up one's coat-sleeve by the same mechanical law.

I have always considered the expulsory action of the urethra as one of the most beautiful and perfect arrangements for protection from many dangers in that quarter, and regard it as in great degree due to the functions of the muscular parietes.

Wimpole-street, Oct. 16th, 1866.

ON SYPHILITIC AND PHAGEDENIC ULCERATION:

THEIR PATHOLOGY AND LOCAL AND CONSTITUTIONAL TREATMENT.

BY DONALD C. BLACK, M.D.

THE subject of syphilis has of late been freely discussed in the columns of THE LANCET, and has elicited much difference of opinion, and, I fear, a more than wholesome amount of recrimination. If it were my present endeavour to elaborate or multiply hypotheses as to the nature and varieties of this disease, I should not consider myself justified in occupying the valuable space of this journal; but believing as I do that, however laudable their study and investigation may be in a purely scientific point of view, the successful treatment of a formidable malady commends itself with superior claims to the great majority of the medical profession, I have therefore less diffidence in placing on record the following case, and in humbly endeavouring to submit a few general principles as to what I believe to be the rational and scientific treatment of this and analogous affections.

I may here premise that, in its intimate medical bearings, the history of the case is somewhat meagre, as I have been favoured only with the account kindly furnished me by the patient himself, an application for a fuller history from his first medical adviser, the family attendant, meeting with no response.

Mr. —— consulted me on the 23rd of February last. About two years before he had contracted syphilis. Had phimosis, with a discharge from the prepuce. It was found necessary to slit up the prepuce, which operation disclosed a chancre on the glans. This state of things went on from bad to worse, despite treatment, to such an extent that Mr. Syme, who had also been consulted, feared that a considerable part of the penis would slough away. Prior to my being consulted the ulceration of the glans had healed, but the appearances then were as follow:—The prepuce had retracted on either side, denuding the dorsum of the penis to almost its entire length, and underneath it was much hypertrophied. A deep ulceration surrounded the base of the penis, and one or two ulcerated patches existed on the adjacent part of the abdomen. The ulcerated surfaces suppurated freely, necessitating the continual use of dressing for the sake of cleanliness, and in this condition existed for nearly the whole time referred to. In a communication received from the patient's own medical attendant in the south, when he first placed himself under my care, he observes:—

"I believe the ulceration is extending, or, at least, not healing. In fact, it has been the most obstinate case I have ever had to deal with." And, after enumerating the various applications used and medicines administered, he sums up: "I should not think it advisable to affect him with mercury; at least Prof. Syme and Dr. Gillespie thought so with me. Hydriodate of potash he has had lots of, and I do not think he took it with marked benefit."

Had I had less faith then in the *judicious* administration of these important medicines, the dictum of such authorities might truly have placed me between the horns of a dilemma; but to my patient I hazarded the opinion that his unfortunate condition seemed to me susceptible of amelioration—a hope not too sanguine, as the result fortunately proved. The following mixture was then prescribed:—Bichloride of mercury, two grains; iodide of potassium, five drachms; tincture of cinchona, an ounce and a half; water to twelve ounces: a tablespoonful, considerably diluted with water, to be taken thrice daily. For a short time, the black lotion, of which he had used so much formerly, was again recommended as a local application; and a nitro-muriatic acid hip-bath, of sufficient strength to be well felt on the ulcerated surfaces, to be used twice weekly. In a short time signs of improvement became manifest; but, to make assurance doubly sure, the calomel vapour bath* had been substituted for the black wash, and was used only about a dozen times, the nitro-muriatic acid bath being continued as formerly.

On April 27th, or in about two months from the date of his first consulting me, after a short absence from this town, my patient called on me, when I had the gratification of being informed that the ulceration was quite cured. And on May 19th he writes me: "Please accept my best thanks for the care you took of me, and for the success which crowned your treatment." Those to whom I am known will not impute to me the charge of quoting these observations in self-laudation, my object being entirely to indicate the non-recurrence of untoward symptoms, as little medicine had been taken from the beginning of April. I should have stated that no secondary symptoms appeared; the general health, however, was undermined by the persistence of the ulceration, but palpably improved as the recovery of the affected part proceeded.

Now, a combination of means producing such a desirable result, when treatment has failed in the hands of men to whose opinions we "lesser lights" are at all events supposed to defer, imperatively demands, I say, serious consideration. It is a fashion that too generally obtains to rush to new medicines and new methods of cure; but the profession should deliberately balance the efficacy of remedies tried and proved by the crucial test of experience against the adoption, because new, of means and measures too often, to say the least of them, of questionable utility. My reasons for adopting the above treatment the sequel will show. I may be greatly in error, but I have for a considerable time entertained convictions, gradually corroborated by such experience as my limited sphere affords, that syphilis presents features sufficient to justify striking analogies with a certain group of diseases, and that its local and constitutional manifestations require identical treatment; that the term "specific treatment" is meaningless, and that an important law is involved in the treatment of ulceration, whereby the *modus medendi* of an equally important class of medicines may be scientifically explained. We must all admit, and, admitting, regret, that while of remedies their name is legion, the diversity of opinion as to their individual efficacy is as proverbial as the "glorious uncertainty of the law." This is due, I apprehend, in a great measure to the fact that one individual derives much benefit in a given disease from a medicine belonging to the very class from another of which equally satisfactory results are obtained in the hands of a second practitioner, and the inference is forthwith deduced that, because the one remedy is effectual, the other must be comparatively worthless, if not absolutely inert. It is therefore the bounden duty of all well-wishers to Medicine as a science to endeavour to reconcile differences by searching for and expiscating general principles or laws; to attempt, in fine, to rescue Medicine from the thraldom of routine and empiricism, and to base it on a sure foundation, from which must arise simplicity, harmony, and order as its essential concomitants, and thus conduce to the diminution, if not the perfect annihilation, of that clashing of opinion and rabid controversy and altercation too frequently indulged in. The attempt may to many seem utopian, but towards the isolation of a certain group of diseases and a particular class of remedies I now lend my best, however feeble, endeavour.

It is received as a pathological axiom that irritation is *par excellence* a frequent cause of inflammation and its consequences. Further, irritation may be said, as such, to be the cause of all inflammatory affections. It may be urged that irritation is itself an effect. That, I most willingly concede; but as *its causes* are various, it is convenient to generalise by starting, so to speak, from the primary effect common to all inflammations. Thus the cause of irritation in the case of syphilis is the deposition on the affected part of a specific poison; in the case of endocarditis, the abnormal amount of acid in the blood coming in contact in the course of the circulation with the delicate endocardial membrane, not by retrocession of a poison, as the antiquated practitioners of our own and bygone times are and were wont to entertain. The cause in the case of pneumonia is cold under favourable circumstances, or, rather, unfavourable ones; in diphtheria and

* The apparatus of Benham and Pryal, Chandos-street, London, was the one used, and answered well.

scarlet fever, between which striking analogies are very manifest, the elimination of a specific poison in the fauces; in enteric fever, probably by the elimination of its poison by the gastro-intestinal mucous tract; in phthisis, by the deposition of tubercular matter from the blood, &c. Thus it will be seen that the causes of irritation in those diseases are various, but *it* and its consequences are common to all of them. I may here remark that when the system is under the influence of any poison whose presence, if the expression be permitted, has not been anticipated by nature, and for which consequently no excretory apparatus has been assigned, the duty of eliminating it seems to be imposed on particular parts of the body: they are virtually extemporised as excretory organs.

Of ulceration, then, two kinds may be said to exist—the specific and the non-specific; and their difference, it occurs to me, consists in this: that whereas the irritation causing the non-specific inflammation, as in the case of pneumonia, pleurisy, simple conjunctivitis, &c., has a natural tendency, and does, it may not inappropriately be termed, die out by degrees, that causing the purely specific inflammation and its consequences, as in the case of syphilis, is auto-inoculable, and thus more permanent. In other words, the irritation is indefinitely transmitted, and its effects are thus necessarily perpetuated. The question then, by a natural gradation, presents itself, What are the effects of irritation? When a healthy part is artificially irritated, contraction of the minute capillaries ensues, accompanied by pallor, due to retardation of the local circulation and diminution of the quantity of blood. The nerves supplying the part are temporarily paralysed; then reaction ensues, the course of the blood is accelerated, and, if the inflammation be sufficiently intense, the blood-corpuscles ultimately block in the capillaries, and exudation of liquor sanguinis takes place, with abnormal heat, swelling, and pain. The vitality of the part is thus depressed; circulation and absorption are imperfectly performed; suppuration and ulceration as a consequence ensue, or, if altogether arrested, a slough forms. The former is the effect of depressed vitality, the latter of total death. Inflammation, as we have seen, gives rise to local stasis; in consequence, the affected part is not adequately supplied with arterial blood, and as the metamorphic changes compatible with healthy tissue are not effected, absorption is arrested, and the elements of venous blood are not removed. Waste of tissue is supplied by liquor sanguinis, or rather, by a peculiar constituent of it—fibrin. Before repair can take place the tissues that have already served their purpose in the economy must be removed. It is impossible, under the above conditions, for thorough oxidation to ensue, in consequence of the deficiency of arterial blood; and according to the degree of stasis so will be the effects. These conditions in the non-specific ulceration are transient. The cause being gradually removed, repair proceeds; but as in the specific the cause is auto-inoculable, the tendency to repair is indefinite, and determined by circumstances, such as the general health of the patient, &c. The one ulceration need not be cured, as it will cure itself; the other should be and is daily cured.

(To be concluded.)

A Mirror

OF THE PRACTICE OF

MEDICINE AND SURGERY

IN THE

HOSPITALS OF LONDON.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

LONDON HOSPITAL.

CASE OF DISEASE OF THE CEREBRAL ARTERIES (SYPHILITIC?); SOFTENING OF THE BRAIN; CLINICAL REMARKS.

(Under the care of Dr. HUGHLINGS JACKSON.)

THE disease of the cerebral arteries in the following case was not of the kind usually found with softening of the brain. Dr. Hughlings Jackson has but twice before seen this condition of the arteries of the brain, and in both cases the patients were the subject of constitutional syphilis. Dr. Wilks has recorded a well-marked case in his valuable paper "On Syphilitic Affections of Internal Organs" in Guy's Hospital Reports; and Dr. Bristowe has several times (see especially Trans. Path. Soc., vol. x.) drawn attention to plugging of the arteries of the brain in patients the subject of syphilis. In the following case there is, unfortunately, scarcely any evidence as to syphilis; and the probability that the arterial disease was syphilitic rests solely on the likeness the appearances have to those in other cases of undoubted syphilis.

In the two cases which Dr. Hughlings Jackson had seen before the one we now place on record, the symptoms during life were chiefly those due to *disorderly* paralysis of several cranial nerves. But in one of them death followed about two days after an attack of hemiplegia, which symptom was found after death to have been due to softening from blocking of one middle cerebral artery. Such an accident was the immediate forerunner of death in the following case, although no doubt the arterial tubes had been diseased for some time.

An interesting account of syphilitic affection of arteries will be found in an able review of the works of Zambaco and Lacharriere in the *Medico-Chirurgical Review* a few years back. From this article we make the following extract:—"In the great majority of cases, and in all cases whatever in the first instance, the cellular tissue—using the word in the large acceptation which Virchow gives to it—is alone affected. In the primary and secondary phases of the disease, the skin and mucous membranes—that is, the outer and inner envelope of the body—are involved; and in the large and ill-defined group of subsequent symptoms which are spoken of so vaguely as tertiary, the seat of the mischief is usually in the osseous and fibrous systems, which, to the eye of the philosophical histologist, are but modified forms of the fundamental cellular or connective tissue."

Dr. Hughlings Jackson said that, whilst admitting that nerve tissue might directly suffer from syphilis, he himself knew nothing of syphilitic affections of the nervous system otherwise than as arising from disease of its bloodvessels and of its pia mater. In short, syphilitic diseases *of* the nervous system were rather diseases of connective tissue *in* or about nervous organs. He remarked on the vast importance for treatment of a knowledge that syphilis might occasionally be the cause of nervous symptoms, and on how much we, as members of a utilitarian as well as of a scientific profession, are indebted to such men as Reade (of Belfast), Todd, Wilks, Bristowe, Hutchinson, and Russell (of Birmingham). He added, however, that he feared we frequently saw syphilitic affections of the nervous system, and especially epileptiform seizures, too late for very successful treatment. When a man has a unilateral convulsion—and convulsions due to syphilis are generally unilateral—in the midst of ordinary health, it is a sign, Dr. Hughlings Jackson thinks, that there has been disease in the head for some time before it began, as it were, "to live an outward life" in occasional convulsive attacks. Iodide of potassium would be about as likely to absorb "tubercle" as to absorb some of the so-called "deposits" from syphilis. And, as a matter of fact, Dr. Hughlings Jackson has not found the treatment of *chronic* cases of syphilitic disease of the nervous system to be so satisfactory as many would, *à priori*, think it would be. He believes, too, that iodide of potassium not unfrequently gets more credit than is its due when administered for some of these syphilitic diseases of the nervous system. Patients the subject of what has been called "syphilitic epilepsy" are liable, like other epileptic patients, to have attacks of convulsions in batches, and in the intervals of the seizures they may be almost comatose. Now, Dr. Jackson thinks it is not exact to suppose, because a patient recovers from such a condition after taking the iodide of potassium, that he recovers *because* he took it. As a rule, the patient will get over the status epilepticus, whether he takes the iodide or not, and whether the convulsive attacks be dependent on limited organic disease from syphilis or on any other kind of limited organic disease of the hemisphere.

James P—— was admitted on a Tuesday, and died on the Friday following. The only time when Dr. Hughlings Jackson saw him was in the afternoon of the day of admission. The patient was apparently quite sensible, and answered questions rationally, but seemed surly and did not like to talk. He was hemiplegic on the left side. No paralysis of the orbicularis palpebrarum could be detected, but there was a little drawing of the mouth to the right side, and the left arm and leg were paralysed. No loss of sensation could be made out. Unfortunately very little history was obtainable from him, and very little could be afterwards obtained from his wife. He

had had sore-throat five years before and a scaly rash since, and had been in this hospital twice before for "rheumatism." The man seemed all along to be chiefly dull, and lay quiet; but one of his fellow-patients said he was "curious" in his talk, and instanced that he had said he would like to have "a pound of sausages and two pints of beer all chopped up together." His death took place rather unexpectedly.

The post-mortem examination was made by Dr. James Jackson, the resident medical officer, and Mr. Frederick Mackenzie, the assistant medical officer. No disease was found except in the brain, and this was put on one side for Dr. Hughlings Jackson, who afterwards examined it with the help of the two gentlemen just named. The carotid arteries at each side were, from the point at which they were cut to the giving off of the anterior and middle cerebral arteries, much thickened; and this thickening extended about a quarter of an inch up each vessel in a sort of node, ending abruptly. The right middle cerebral artery was much narrowed at one point, and was blocked up, but the coagulum seemed to be recent; the calibre of the left, although apparently the vessel was quite as much diseased outside, was not diminished, and there was no coagulum of any sort in it. Soon after its commencement, the left anterior cerebral artery was swollen into a node the size of a large pea. Both vertebral arteries were thickened and nodose, and the channel of the left one was narrowed at one point, and at this point the artery was fastened to the medulla oblongata by a sort of stuff which looked like dirty putty. The basilar artery was generally thickened, but was not patchy; the posterior communicating arteries appeared to be healthy. As there was a good deal of softening of both posterior lobes, the posterior cerebral arteries were carefully examined, and each soon after its origin was found to have become suddenly nodose, and of about the size of a small horse-bean. The right was firmly blocked near, and the other within half an inch of, its origin. The convolutions in the neighbourhood of the corpora striata were carefully examined. On the left side no softening nor any abnormal state could be detected, and the corpus striatum itself was quite sound. On the right side the corpus striatum was found to be much softened, but was only diffluent in a small part externally, and the convolutions on both sides of the Sylvian fissure were much softened. The softening of the convolutions was not well defined. The softening of the posterior lobes seemed to be about equal.

The case is interesting in reference to the position of disease in the brain when speech is affected. In this instance no microscopical examination was made; but in the other cases, the material matting together the arteries, pia mater, and nerves, was found to consist chiefly of granules and fat, and in some parts a few fibre-cells were found.

KING'S COLLEGE HOSPITAL.

RETROVERSION OF THE GRAVID UTERUS IN THE FOURTH MONTH OF PREGNANCY; UNSUCCESSFUL ATTEMPTS AT REDUCTION; FINALLY REDUCED BY FLUID PRESSURE; RECOVERY.

(Under the care of Dr. W. S. PLAYFAIR.)

IT was remarked by Dr. Playfair, that this case was interesting from the success which had followed the gradual and steady fluid pressure employed, after the ordinary means of reduction had failed. Ganil had long ago suggested the use of one of his air-pessaries for this purpose, and the plan had been from time to time tried with success. The use of fluid pressure had this great advantage over the more general treatment, that it was comparatively painless, and saved the patient the distress which all endeavours to effect immediate reduction necessarily involved.

The notes of the case were furnished by Mr. Dubbs.

Sarah A——, aged forty-two, by occupation a laundress. She is the mother of twelve children, and all her pregnancies and deliveries have been natural. She applied as an out-patient on the 13th of August, complaining of inability to retain her urine, which constantly dribbled from her, although she was unable to pass any quantity at a time. There was, in spite of this, an incessant desire to micturate. She complained also of intense backache, great pain in defecation, and inability to sit or lie comfortably. She had passed three catamenial periods, and supposed herself to be in the fourth month of pregnancy. Per vaginam, the os and cervix could be reached with difficulty, lying high up behind the pubes. The cavity of the pelvis was occupied by a smooth globular mass, corresponding in size to the supposed period of pregnancy, evidently consisting of the gravid uterus in a complete state of retroversion.

On admission, Dr. Playfair directed the catheter to be passed night and morning, and a large enema to be administered with the object of thoroughly emptying the bowel. The catheter was introduced without much difficulty, and first fifty-four and subsequently sixty-four ounces of urine were drawn off.

Next morning Dr. Playfair attempted, without success, to effect reduction—first by passing two fingers of the left hand into the rectum, and pushing up the fundus uteri, while the os and cervix were drawn down by the right hand; and subsequently by placing the patient on her knees, with the head on the bed, and pushing the fundus upwards per vaginam. Failing these ordinary means of reduction, a caoutchouc bag of sufficient size to fill the vagina was introduced, and kept constantly filled with water, care being taken at the same time to keep the bladder and bowels empty. After steady pressure had been kept up in this way for about twenty-four hours, the patient expressed herself much relieved, and on examination the uterus was found to be completely replaced.

The patient has been frequently seen since, and there has been no subsequent tendency to displacement.

WEST LONDON HOSPITAL.

RUPTURE OF THE URETHRA FROM A BLOW ON THE PERINEUM; RETENTION AND EXTRAVASATION OF URINE; PUNCTURE OF THE BLADDER PER RECTUM; RECOVERY.

(Under the care of Mr. TEEVAN.)

IN the course of the treatment of this case the following facts were elicited:—1. The endoscope showed that the membranous part of the urethra was deeply congested. 2. The *bougie à boule* ascertained that there was contraction of the membranous part of the canal; and, lastly, the gum-elastic catheter showed that there was deviation.

The *bougie à boule* is undeservedly neglected in England. It will discover the existence of a stricture when a No. 8 catheter can be passed with facility and fail to ascertain anything wrong.

J. P——, a strong, healthy-looking labourer, aged twenty-four, whilst walking along with his horse and cart, on the afternoon of the 27th of March last, was knocked down by the horse suddenly starting, and run over by the cart. A few hours after the accident he was admitted into the hospital in a state of collapse, from which he rallied at night.

When seen by Mr. Teevan, at two P.M. the following day, he was lying on his back with his knees drawn up; face flushed, and covered with sweat; pulse quick and strong; tongue white and foul; right gluteal region much bruised, and the entire perineum much ecchymosed. No induration anywhere, and the skin on the scrotum and penis quite natural. Blood was trickling from the urethra, and several clots of blood were on his shirt. The hypogastric region was much distended, and dull on percussion. The patient had not micturated since his admission. A full-sized catheter when introduced passed up to the hilt into the left ischio-rectal fossa. Mr. Teevan immediately punctured the bladder through the rectum, and drew off three pints of clear urine. The patient felt relieved, and fever gradually abated towards night.

March 29th.—Urine passes copiously through the tube; ecchymosis over the gluteal region much increased, and the skin in the perineum is quite black in places. The integuments are everywhere quite supple.

April 1st.—Three P.M.: Patient very feverish; much induration in the right ischio-rectal fossa; the urine passes freely through the tube, and, for the first time, the patient this morning micturated a little per urethram. In the course of the afternoon the patient had an attack of rigors, and Mr. Teevan laid open the right ischio-rectal fossa, out of which about half a pint of clear urine immediately gushed forth.

2nd.—Patient much better; urine passes per rectum, per urethram, and through incisions.

14th.—No urine passes through the rectum or the perineum.

May 1st.—Wound in the perineum quite healed.

12th.—Discharged cured.

21st.—Comes to the hospital as an out-patient to-day for the first time. Mr. Teevan passed a No. 7 gum-elastic catheter, and ordered the patient to attend once a week to have the catheter passed.

Mr. Teevan remarked that, in this case, the extravasation of urine was downwards into the right ischio-rectal fossa, the scrotum and penis entirely escaping. Why was this? When the urethra was lacerated between the two layers of the triangular ligament, the urine passed through the anterior layer in preference to the posterior, inasmuch as the former is not only very much thinner, but is also perforated in many places for the transmission of vessels and nerves. The urine thus came in contact with the deeper layer of the superficial fascia, which it perforated by ulceration, and then gravitated into the right ischio-rectal fossa. It would also seem that the laceration of the urethra must have been partial, and confined to the right side.

Medical Societies.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, OCT. 3RD, 1866.

DR. BARNES, PRESIDENT.

MR. JAMES KEITH GROSJEAN was admitted a Fellow, and Professor Rizzoli, of Bologna, an Honorary Fellow, of the Society.

Mr. NEWTON exhibited three preserved specimens, which he presented to the Society.

Dr. BRAXTON HICKS showed a Cephalotribe of his own design. It was lighter in construction than any yet made, and possessed power equal to those of larger size now in use on the Continent.

The Report on Dr. Wynn Williams's case of "Cyst Removed from the Abdomen," and exhibited at the Society in June last, was read.

Dr. BRUNTON showed a Placenta which he had removed a few days before from a healthy primiparous young woman. It contained in its centre a round tumour about the size of a small egg. The specimen was referred to two Fellows for examination, and a report upon the tumour.

Dr. SMUTS gave the history of a curious case of Prolapsed Placenta, in which, after the greater part of the placenta remaining outside the vulva for more than forty-eight hours, it retracted within the uterus beyond the reach of the finger, and was expelled immediately after the birth of a healthy living child.

Mr. MITCHELL read a paper on

A CASE OF EARLY AND ENTIRELY DETACHED PLACENTA IN LABOUR, PRODUCING INTERNAL AND CONCEALED HÆMORRHAGE, OF WHICH THE PATIENT DIED SOON AFTER DELIVERY.

The patient, who was in the ninth month of gestation, was early one morning awoke by a most unusually violent and protracted spasm in the abdomen, so severe that she became alarmed. This pain was followed by a discharge of blood from the vagina, which, although not very great, continued more or less up to the time of the birth of a still-born child. She never rallied, and died shortly after delivery. A large, firm clot, the size of a child's head, had passed from the uterus just before death. Mr. Mitchell considered it as one of those very rare cases where the placenta was suddenly and, no doubt, entirely cast from the uterus by the violent spasm of that organ.

Mr. ROBERT DUNN gave the particulars of a

FATAL CASE OF CONCEALED ACCIDENTAL HÆMORRHAGE, OCCURRING AT THE EIGHTH MONTH.

Mrs. C——, suffering from a severe cold, experienced while in bed, after a violent fit of coughing, strange and unusual sensations about her womb, and became faint. From this she recovered, and remained well for three or four days, when Mr. Mitchell was sent for. On his seeing her, she was cold, exhausted, and faint, with a weak and feeble pulse. From this state she rallied, but was seized with labour a few hours later. The liquor amnii escaped early, and with it a large clot of blood. She became faint, and complained of the want of breath. The os uteri being dilated to only the size of a half-crown, and the pains inefficient, stimulants, beef-tea, and ergot were administered, and Dr. Robert Lee's opinion was sought for. The patient, however, rapidly got weaker, and expired before the consultation had concluded. The post-mortem inspection revealed a child of eight months lying in the normal position in the womb. The placenta was found to be completely detached and quite loose, resting upon a large mass of coagulated blood, not less than a quart, in the fundus of the uterus.

Dr. GREENHALGH agreed with Messrs. Dunn and Mitchell that fatal accidental hæmorrhage was of rare occurrence; never having met with a case until within the last few weeks, when he was applied to by a teacher of midwifery to see Mrs. ——, between thirty and forty years of age, the mother of many children, who had reached the end of the eighth month of her pregnancy. Dr. Greenhalgh found the patient blanched, cold, and almost pulseless, without the slightest evidence of uterine action. Stimulants and nourishment were given freely, but without signs of rallying. Eight ounces of blood were transfused, after which she expired. Although no time was lost in performing the Cæsarean section, a dead child was extracted. The circumference of the placenta was adherent, except about two inches of its upper part, through which a portion of clot was protruding. Nearly the whole of the centre of the placenta was detached, and between it and the uterus was a large coagulum, weighing from one and a half to two pounds. The uterus was remarkably blanched and flaccid.

Dr. BRUNTON stated that he had met with a similar case about the full period of gestation. His patient was collapsed and nearly pulseless, and in a state of intense suffering. There were no labour pains, but one continuous pain of an intense stretching character. He found the os uteri dilated to the size of a florin, and the membranes tensely stretched, as during a labour pain; but there was no relaxation of them, as in the interval between true labour pains. There was no discharge of blood at all until the membranes were ruptured, and then an immense gush of bloody fluid came away, rapidly followed by the head and body of the child, and then came three large clots of blood, each as large as a child's head. The placenta was healthy and cup-shaped on the uterine surface, caused, doubtless, by pressure of retained blood. The patient recovered. Dr. Brunton maintained that the chief diagnostic symptoms of accidental concealed hæmorrhage were—1st, the sudden collapse and fainting, with continuance of this state; and 2ndly, the intense continuous stretching pain, and the tense state of the membranes, also continuous.

Dr. GRAILY HEWITT attached much importance to the presence of a painful feeling of stretching or dilatation in the abdomen as a sign of hæmorrhage within the uterus, but from facts which had fallen under his own notice, and which he mentioned, it was not a symptom which was invariably observed, and consequently could not be considered as reliable. It might be absent, and yet with the uterus possibly containing a large quantity of blood. Together with other signs, great prostration and pallidity of surface, the sensation alluded to had, however, much positive diagnostic value.

ON A NEW MODE OF TREATING EPITHELIAL CANCER OF THE CERVIX UTERI AND ITS CAVITY.

BY C. H. F. ROUTH, M.D.

The author, after referring to the able papers of Mr. Moore on Cancer, said that the use of bromine as a local agent was first suggested to him by his colleague, Dr. Wynn Williams. Dr. Routh then related two cases admitted under his care at the Samaritan Hospital. In the first, the patient was thin, pale, and haggard, losing blood continually. There was a mass of fungoid epithelial growths, taking their origin from the os uteri, and about the size of an egg. The actual cautery was used to check the bleeding, and after the slough had come away a solution of bromine—five minims, to fifty of spirits of wine—was used. A piece of lint, the anterior surface of which was well saturated with the solution, was applied to the uterine diseased surface, and kept *in situ* by pledgets of lint. After forty-eight hours it was removed, and the part dressed at night with a poultice of lint dipped in warm water, and during the day warm douches were applied. In about a week a slough came away, and left a large healthy granulating surface. Tannin with glycerine was applied, and used daily. The patient also took internally the iodide of arsenic with extract of conium. After a period of ten weeks she was fat, hearty, and well coloured; but as she occasionally lost a drop of blood, Dr. Routh carefully examined the internal surface of the uterus, and found about a quarter of its lining membrane affected with epithelioma. She left the hospital for some weeks, and on being readmitted a piece of wood about the size of the uterine cavity was prepared, and covered with cotton: the upper part was dipped in a saturated solution of carbonate of soda, the lower in the bromine solution, and it was passed up and left within the uterus. Two or three further

applications of bromine with glycerine were necessary, and the patient left the hospital with a movable healthy uterus.

In the second case there was a large carcinomatous mass, about the size of an orange, attached to the os, which appeared to be large cauliflower excrescences, breaking down readily and bleeding at the slightest touch. On the 20th January the mass was removed by the wire écraseur, and a few days afterwards the spirituous solution of bromine was applied. She took internally the iodide of arsenic and conium, and was treated in the same manner as the first case. She left the hospital on April 2nd, with a movable uterus covered with healthy mucous membrane, and looking herself fat and hearty.

The author remarked that he was quite aware that two cases afford an insufficient criterion as to the value of any remedy, and that time had not been allowed to prove that the cures were lasting. Notwithstanding these objections, he thought, at the same time, there were some considerations which made an early publication of these cases desirable. The author concluded by drawing attention to the care necessary in mixing the bromine with the spirits, which should be done very gradually, to avoid an explosion. He hoped others would try the agent he now brought forward, and give the results of their experience. He believed it to be a potent and useful remedy, and likely to prove of service, if not in the cure absolutely, at least in the arrest of the progress of cancer.

Dr. WYNN WILLIAMS said that he had applied solutions of bromine, in varying degrees of strength, in cancerous growths where there has been any breach of surface, for some nine or ten years; and for the last two or three years to this disease when attacking the uterus, with the effect of destroying the cancerous mass, and causing its removal by sloughing. The first patient on whom he used it was a man suffering from epithelial cancer which had commenced in the lower lip, the soft parts having been almost entirely removed; and wherever he was able to apply the solution of bromine the wound healed, until the whole external surface of it, extending, he might say, almost from ear to ear, had skinned over. The patient, however, ultimately died from extension of the disease to the neighbouring glands. Dr. Williams considered the beneficial effects of bromine were not confined to its corrosive or escharotic action only, but it acted also as a most powerful disinfectant, its good effects in this way being of very great service. He had seen patients with that peculiar cachectic, emaciated aspect so common in those suffering from open cancer rapidly improve in appearance soon after using bromine applications. He had found that in almost every case in which he had been able to apply bromine directly to the cancerous growth it had been followed by most beneficial results. He had frequently prescribed bromide of iron internally whilst applying the bromine externally, but thought its effect very problematical.

Dr. ROGERS said he believed some of the previous speakers were labouring under an erroneous impression that the paper by Dr. Routh and the remarks of Dr. W. Williams tended to establish a new "specific for cancer." All that was desired to be made known was the fact that in some cases of epithelial cancer of the cervix uteri the bromine had proved a most energetic and valuable escharotic, destroying vascular growths, arresting hæmorrhage and the prostration resulting from it, and checking all fetid and foul discharges. Healthy granulations followed its application, and the parts appeared free from disease. How long such improved state would continue could not at present be predicted. This was certain, that a most marked improvement took place locally and constitutionally. The patients would soon have died had not the disease been arrested; now they appeared restored to health and strength again. Of course, where the bromine could not be applied to the whole of the diseased parts the mischief could not be arrested, and the disease proceeded on its fatal course. Bromine, like other powerful caustics, required great care and all the precautions mentioned by the author in its use. From its not being properly guarded, he (Dr. Rogers) had known mischief to arise which ought to have been prevented. He had used it himself, and had assisted the author with all his cases; and great credit was due to Dr. Routh for the skill, care, and perseverance exhibited by him.

Dr. ROUTH, in reply, said he had frequently seen cases of extirpation of cancerous growths by the knife or écraseur, but they almost invariably recurred. The plan proposed did more, or supplemented what knives and écraseurs could not do; and he must say he never saw change so rapid from one of marked cachexia to robust health as under the bromine treatment. It was because he had thought this so remarkable that he wished others to try it also for themselves. If the agent was what he believed, the profession would soon acknowledge it. Herein he only followed the general rule of medical men, which differed so much from that of quacks, to make known at once any remedy for the good of all, and not to keep it secret. Great harm, he believed, had been done to the treatment of this affection in our schools and elsewhere by invariably speaking of cancer as incurable. Now he believed opinion was changing, and some began to believe a cure might be found. He did not say that bromine was certainly such a remedy, but at any rate it was the most powerful palliative he had met with. To see a woman dying by inches before you, and carrying about her an odour completing her misery, was a severe trial. If bromine could stop this only for six months it was surely to be received with thankfulness. Future experience, however, might prove its powers to be even greater than this.

ON THE MECHANISM AND MANAGEMENT OF DELIVERY IN CASES OF DOUBLE MONSTROSITY.

BY W. S. PLAYFAIR, M.D., M.R.C.P.

The author pointed out that, although numerous instances of double monstrosity were recorded in various publications, and specimens were met with in all our museums, little reference was made to the mechanism of delivery in any of our standard works on Obstetrics. As the cases were likely to give rise to very formidable difficulties in practice, the object of the paper was to arrive at a clear understanding as to the means by which Nature attempted delivery, with the view of arriving at some definite conclusions as to the proper management of cases of the kind. Details were collected from various sources of thirty-one cases, in which the labour was more or less accurately described. These histories were analysed under their respective classes, and practical deductions were arrived at as to the proper course to be pursued with the view of rendering the most efficient assistance.

Reviews and Notices of Books.

Clinical Memoirs on the Diseases of Women. By GUSTAVE BERNUTZ, Physician to La Pitié; and ERNEST GOUPIL, late Physician to the Bureau Central. Vol. I. Translated and edited by ALFRED MEADOWS, M.D. &c. New Sydenham Society. 1866.

TOWARDS the close of the year 1860 Messrs. Bernutz and Goupil published the first division of their "Clinique Médicale sur les Maladies des Femmes." This volume, which consists of 591 closely printed pages, has now been translated by Dr. Meadows for the members of the New Sydenham Society; the translator having by condensation, confined chiefly to the notes and cases, succeeded in getting the matter into a work of less than half the size of the original. The volume, thus abbreviated, has been published with the full consent of Dr. Bernutz; this gentleman's colleague, M. Goupil, having unfortunately died a few months ago. As editor and translator, Dr. Meadows has performed his somewhat difficult task with considerable skill; and if the second volume be as well rendered into English as the present one, the profession will be indebted to him for making easily accessible to it a very useful work.

As the title indicates, the authors had no intention of writing a complete treatise on the diseases of women. Their aim has been to treat only of such important affections of the uterine organs as they have had favourable opportunities for investigating clinically; and as their essays are the result of considerable experience and close observation, they have an especial value. The present volume is devoted to the subjects of menstrual retention, peri-uterine hæmatocele, and intra-pelvic hæmorrhage occurring in extra-uterine pregnancies. This arrangement may at first appear confused and perplexing, but in reality it has many advantages. Dr. Bernutz was anxious at starting to consider those simpler questions by a full comprehension of which the study of the more complex ones would be facilitated. He tells us that the course he pursued was first to investigate the more common forms of functional disturbance—as, for example, the difficulties which may attend the escape of the menstrual secretion from the uterine and vaginal

canals; such difficulties forming the starting-point of a series of morbid phenomena which are generally understood by the pathologists of the present day. In the case of congenital imperfection of the uterus or vagina, the symptoms arising from retention of the catamenia gradually increase in intensity, and they may aptly be compared with analogous cases in which the obstruction is produced by existing or antecedent disease. Amongst other subjects, such a study and comparison lead to the consideration of pelvi-peritonitis, a full knowledge of which morbid state is requisite for the comprehension of all diseases of the genital organs. So, again, with regard to peri-uterine hæmatocele, many more questions have to be considered than at first sight may appear necessary; inasmuch as this form of intra-pelvic hæmorrhage is not in itself a specific disease, but rather a most important symptom of many different morbid conditions.

With these remarks we recommend this volume to the notice of our readers. It is no part of our business to make an abstract of the three valuable memoirs which it contains. But their careful study is imperative on all who are interested in gynecology; partly because the essays contain a notice of all that is at present known of the subjects to which they are devoted, but still more for the reason that they are eminently suggestive in indicating the starting-point for further inquiries.

De l'Anæsthésie Locale, par la Pulverisation de l'Ether. Et Description d'un nouveau Pulverisateur par le Gaz Acide Carbonique. Thèse pour le Doctorat, par ALBERT LE PLAY, Docteur en Médecine. Paris. 1866.

THIS is an ingenious and well-written treatise. The author goes briefly, but thoroughly, into the history of the successive modifications of the idea (which is of course very ancient) of producing local anæsthesia. He makes a fair and discriminating criticism of the merits of Dr. Richardson's famous little instrument, and describes the chief modifications of it which have been made by French surgeons. He tells us all about the local action of ether; and offers a well-reasoned argument in favour of the belief that its anæsthetic effect on the skin is due simply to the cold which it produces, and which paralyses the sensitive nerves.

The most interesting feature of this little treatise, to ourselves, is the description (in an appendix) of an invention of the author, which, as it seems, must lead to important results, whether the first expectations of the inventor be immediately fulfilled or not. Dr. le Play has devised an ingenious instrument, in which the pulverisation of the ether is effected, not by hand-propelled air, but by a stream of carbonic acid gas, generated under a certain pressure. The author would have achieved much if he had merely suggested the important idea of substituting the mechanical action of an expansive gas for the laborious hand-pressure of the ordinary apparatus. But he, justly as we think, hopes for more than this; for it is highly probable that the union of carbonic acid gas, or of other gases which may be made to serve as automatic pulverisers, with the ether-spray, may greatly increase our power of local medication of diseased and painful surfaces, independently of its merits, as yet not properly tested, as a surgical anæsthetic. The subject deserves immediate and general attention from the profession.

Successful Removal of the Uterus and both Ovaries by Abdominal Section; the Tumour, Fibro-cystic, weighing 37 lbs. By HORATIO ROBINSON STORER, M.D., of Boston. Reprinted from the *American Journal of the Medical Sciences* for January, 1866.

IN the month of August, 1865, Dr. Storer was first consulted by Sarah A. C——, aged forty-seven, and unmarried. Good health had been enjoyed until five years previously, when she first became conscious of the existence of an abdominal tumour. This had steadily enlarged, and when Dr. Storer examined the abdomen it was entirely filled by an enormous tumour, being larger than the belly of a woman at the full term with twins. Miss C—— walked with difficulty, could not lie down without dyspnœa, was emaciated, quite deaf, very anxious about herself, and desired relief. The diagnosis between a multilocular ovarian cyst and some form of uterine tumour was left undecided, after very careful examination. On September 23rd Dr. Storer proceeded to operate, the patient being under the influence of ether. An immense fibro-cystic tumour of the uterus was found adherent to the omentum, as well as to the sides of the abdomen and pelvic cavity. It was, however, removed, together with the body of the uterus and both ovaries, the abdominal wound being kept open three hours in all, so as to allow of all bleeding being checked. Wonderful to relate, the patient was convalescent by the fifth day, was allowed to sit up on the twenty-first, and returned to her home on the thirty-seventh. The only other remarkable point in the case was a subsequent attempt at menstruation. From the date of the operation until October 11th, eighteen days subsequently, and twenty-six days after the last appearance of the catamenia, there was no discharge whatever from the vagina. There then occurred a sanguineous effusion, attended by feelings of lassitude, backache, &c., lasting thirty hours, and being an evident attempt at the re-establishment of menstruation—a very curious circumstance, and of great physiological interest, when it is recollected that the uterus and both ovaries had been removed. The ensuing period was passed without its recurrence. It is only necessary to add that four months after the operation, when Dr. Storer's pamphlet was reprinted, the patient remained perfectly well.

THE OUTBREAK OF TYPHOID FEVER AT TOTTENHAM.

To the Editor of THE LANCET.

SIR,—On reading your remarks upon Dr. Seaton's report of an outbreak of typhoid fever and diarrhœa at Page-green, Tottenham, it occurs to me that one chief cause of the disease is not referred to; and that the outbreak did not arise so much from the water-supply being impure, as it did from the state of the drainage mentioned in the concluding paragraph of your comments (page 449)—namely, that all the houses (with the exception of three that have cesspools) have waterclosets communicating with the sewers, and that where the sinks are *inside* the dwellings *they* also communicate with the sewers; and that in the twenty-four houses that derive their water-supply from surface wells (and in which about eighty cases of fever and diarrhœa are said to have occurred) there are no means of flushing except by pails of water poured down *occasionally*.

As the effluvia from drains and putrid emanations from animal and vegetable refuse are admitted by all to be the chief cause of typhoid fever, is it not more than probable that the poisonous gases from the sewers have escaped into the houses, and produced their well-known effects upon those exposed to their pernicious influence?

The difference in the number of cases of fever and diarrhœa in the two classes of houses mentioned by Dr. Seaton is that which was most likely to happen, and which might almost have been foretold: for in the twenty-four houses that are dependent upon the waterclosets being kept clean by pails of water poured down *occasionally*, there have been eighty cases of fever and diarrhœa; whereas in the thirty-four houses having a constant supply of water to carry away the sewage, &c., the number did not exceed twenty.

I am afraid that little good will be accomplished by merely filling up the wells, unless more effectual means are adopted to carry away the sewage-matter and prevent it poisoning the inmates of the houses.

I am, Sir, your obedient servant,

Waltham Abbey, Oct. 22nd, 1866. ARTHUR PRIEST, M.R.C.P.

IT is proposed to establish an Infirmary at Wigan at a cost of from £20,000 to £30,000.

THE LANCET.

LONDON: SATURDAY, OCTOBER 27, 1866.

THE sub-committee of the Corporation of Liverpool appointed to take evidence and report upon the causes of the excessive mortality of that town have discharged their duty. They have completed the evidence, and have come to a conclusion. If their conclusion appears a little too self-complacent, and a little too exculpatory of the authorities of Liverpool for the most shocking condition of health and morals which obtains in that town, and if the evidence of witnesses shows they were not always kept to the point in the strictest way, we have still to thank the sub-committee for a most valuable mass of evidence, and for a report which does justice to the principal factors in the production of the mortality under consideration, if it is perhaps at fault in the order in which it places them.

The evidence now published by the sub-committee is additional to that of Dr. TRENCH, upon which we have already commented, and we should like to see it extensively circulated. We do not know in what numbers copies of it have been printed; but we would strongly urge upon the sub-committee to sanction the free and cheap publication of it, so that on application to the printers* it may be had by the municipal authorities of other towns, and by all who take either a medical or a moral interest in the condition of the people. There are some other large towns, we are sorry to say, whose sanitary and moral condition is only too like that of Liverpool, and it would be well for them if their town councils would seriously consider the plight of Liverpool. It is far easier to keep the mortality of a town from rising than, after it has risen, to bring it down again.

The evidence of Mr. NEWLANDS, the borough engineer of Liverpool, is most important. It goes to show that the main sewers and drains of Liverpool are not in themselves defective or inefficient. On inspection they were found to be perfectly clean and to have a good flow of water. "At every manhole tests for sulphuretted hydrogen and ammonia were used; but no indication of the presence of these gases was given," except in the case of the Vauxhall-road sewer, which receives chemical refuse and waste lime from the gasworks. But although the sewers and drains of Liverpool are apparently perfect in their construction, and although, on the occasion of the particular inspection above alluded to, there seems to have been no smell in the sewers, and a good flow of water, Mr. NEWLANDS, unfortunately, has to point out a defect as serious as any in its power to spoil the health of a great city, and to frustrate the completest system of sewers and drains that can be devised. The water-supply of Liverpool is decidedly deficient. So long ago as 1848, and at various times since then, Mr. NEWLANDS showed that the water-supply was deficient and intermittent. In a dry summer, such as last year, the supply is quite inadequate. The works and plans of Mr. NEWLANDS have been carried out on the supposition of a supply of sixteen million gallons a day from Rivington Pike. On this supposition it was expected that the well-water would be dispensed with. But on the 24th of March of this year Mr. NEWLANDS had to say: "At the present moment we are indebted to the wells for four-sevenths of our total supply..... The deficient water-supply has thrown us back after eighteen years to much the same condition in which we were in 1848, with the *difference of extended works and increased wants.*" The italics are Mr. NEWLANDS'. We are tempted to ask at this point, who is to blame for this defective and objectionable supply of water—four-sevenths of the inadequate quantity being from wells? Mr. NEWLANDS, at any rate, scarcely seems to blame; for he says:

"As our works made progress, I was naturally alarmed at the prospect of a widely ramified system of sewerage and drainage without an adequate water-supply; and I never ceased to urge on the Health Committee, as may be seen by my published reports, the absolute necessity of increasing the water-supply, and in the meantime of palliating the apprehended evils arising from its deficiency by ventilation" (of the sewers).

This appears to us by far the most important point brought out in Mr. NEWLANDS' evidence, and we are disappointed to find only a very short allusion to it in the report and summing-up of the sub-committee. Not only has the Corporation of Liverpool to answer for a defective supply of water, rendering their drainage practically as inefficient as it was eighteen years since, but also for not adopting plans for the ventilation of the sewers, which would have gone far to have obviated the evils arising from a defective supply of water. The neglect of the latter precaution is the more culpable, inasmuch as the carrying out of the suggestions of the borough engineer would have involved a very small outlay. Mr. NEWLANDS' experiments on the ventilation of sewers by connecting them with furnaces are of great interest.

There is much practical agreement among the other witnesses, medical men, relieving officers, house agents, ministers, Roman-catholic priests, &c., as to the nature of disease in Liverpool, and as to the insanitary and immoral condition of the people. Diarrhœa, phthisis, epidemics (especially typhus), are the typical causes of death; and overcrowding, drunkenness, dirt, and badly constructed courts, houses, and streets, are the explanations. According to the point of view of the observer, he is apt to fasten upon one or other of these evils as the radical one from which the others spring. There is a terrible concurrence of evidence as to the existence of an enormous amount of drunkenness, and an equal concurrence of opinion that drunkenness has increased of late coincidently with the large increase of publichouses. The sub-committee could not have done less, with the evidence before it, than recommend the Council to ask Parliament for powers to control the sale of excisable liquors. It would be absurd to hold a corporation responsible for the health of a town, and to give it no control over such an influence as this.

While, however, we do not hesitate to express our conviction that intemperance has very largely to do with the miserable condition of the masses of the poor in Liverpool, it will be a miserably inadequate conception of the case if the Town Council take a merely teetotal view of the question. Diarrhœa and typhus and tubercular diseases have far larger significance than the mere excessive use of alcohol. They mean defect of air and water and light—those prime necessities which become

* George M'Corquodale and Co., Liverpool.

deficient in large towns almost insensibly, before the authorities have had time to think of the growth of population. To a large extent, as the best evidence taken by the sub-committee shows, intemperance itself has this significance: it is a consequence of bad physical conditions in the home and in the workshop. Half the deaths which happen, or thereabouts, happen to children under five years of age, and so can only very indirectly be connected with intemperance. It will not suffice, then, merely to shut up publichouses. Much more than this must be done. The close courts of Liverpool must be opened up; the supply of water must be "at least doubled," so as to supersede the necessity for well-water; the practice of subletting houses must be under registration and regulation, for which purpose the powers of the new Sanitary Act must be used, and if they are not sufficient larger ones must be asked for; and some attempt must be made to provide houses for the people which shall recognise the minimum wants of a family. For all these purposes Liverpool must make up its mind to spend a large sum of money. The only consolation we can offer it is, that it will save in poor-rate what it will have to pay in sanitary-rate; and it will have the satisfaction of keeping alive its poor instead of burying them and keeping their survivors, which it does now at a great cost. Dr. SHEARER, in his evidence, shows that in Toxteth-park district, of which he is the medical officer, in the half year ending Sept. 1861 the number of out-door poor relieved was 2860; and it rose up every year from that time, so that in the half year ending Sept. 1865 the number of out-door poor relieved was 5387. In 1861, the sum of £8132 was paid for the support of out-door and in-door paupers; in 1865, £12,950, or nearly £5000 more, was paid. "This vast increase in the tribe of paupers," says Dr. SHEARER, "is the legacy which typhus has left us. In plain English, the heads of families being removed, their bereaved families have been thrown upon the welcome though cold charity of the parish." How much more satisfactory it would be to have spent this £5000 as interest upon loans for sanitary works.

THE marvellous monument of industry and research which HUNTER left behind him has not merely maintained, but has much increased its reputation of late, thanks to the labours of the various able conservators to whom its care has been entrusted by the Council of the College of Surgeons. Perhaps it is yet hardly appreciated so fully as it deserves by the members of the profession who would gain most from it—we mean those still or recently *in statu pupillari*, who with many an unoccupied hour on their hands might devote some time at least with advantage to the study of the preparations in the Hunterian Museum. The amount of information crowded together is at first sight overwhelming, but the contents of the Museum are divisible naturally into groups, and one or more of these must have interest for each individual.

Even the first-year's student may profit by the investigation of the splendid osteological collections, where he will be able to trace each bone through its various stages of development in the human skeleton, and to contrast it with its homologue in the several divisions of the animal kingdom, and more particularly amongst the numerous members of the great vertebrate order to which man belongs. Let him turn to the physiological series for illustrations of the great functions of circulation and digestion to which his attention is being directed by his teachers, and he will find illustrations such as no hospital museum can supply, and which cannot fail to facilitate his appreciation of the physiological lecturer's meaning. Few students have had the opportunity of studying even the elements of comparative anatomy before commencing their medical studies, but they may here by a few hours' work gain a knowledge of the animal kingdom which must assist them in the study of the human body.

To the practising surgeon the Hunterian collection yearly becomes more valuable, since the present curator, Mr. W. H. FLOWER, F.R.S., is gradually strengthening the pathological section of his charge, which had become somewhat dwarfed in comparison with the anatomical portion of the Museum. HUNTER was a great surgeon as well as anatomist, and the pathological portion of the collection should bear as direct a ratio to the progress of surgery as the anatomical does to that of zoology. On looking over Mr. FLOWER'S report for the current year we notice that only forty-six pathological preparations have been presented to the Museum, and these "mostly the gifts of members of the Council of the College;" but we fancy the profession at large can hardly be aware that pathological specimens would be "thankfully received and gratefully acknowledged," or the numbers would surely be trebled at least. In our London hospitals, the hospital museum has naturally the first claim upon the pathological specimens occurring within the institution; but there must be a vast number of interesting specimens occurring in other hospitals and institutions where no collections exist, and among private practitioners, which would be welcome additions to the Museum shelves. Of course the curator must reserve a right of selection, and every specimen presented may not be found worthy of permanent preservation; but at least the medical profession might do something to assist the College authorities.

The forty-six preparations are some of them of great interest, whilst others are but little remarkable, though we suppose it would hardly be correct to refuse even "an enlarged tonsil" when presented by a member of Council. Among the more noteworthy specimens, which will well repay inspection, are two examples of an unreduced dislocation of the humerus, and one of a shoulder from which the head of the humerus was excised fifty years before the patient's death. An example of excessive hypertrophy of the mammary gland, removed by Sir WM. FERGUSSON, and one of fibrous tumour of the round ligament of the uterus, removed by Mr. SPENCER WELLS, are rarities which are properly placed in the great collection. A beautifully prepared specimen, and one which is of great practical interest, is a stump some years after the performance of PIROGOFF'S amputation at the ankle-joint. Here the union of the cut surfaces of the tibia and os calcis is excellently seen, and the whole stump forms an example of most successful surgery.

We trust that our suggestion to increase the pathological collection by general contributions will bear fruit, and that others besides those directly connected with the College will lend a helping hand for the advancement of its Museum.

THE Liverpool Town Council were on Wednesday last engaged in discussing proposed improvements in various parts of the town, involving an estimated expenditure of £368,000, and sanctioned them to the extent of £250,000.

Medical Annotations.

"Ne quid nimis."

MEDICAL STUDENTS.

THE number of entries at the several medical schools this year is above that of several preceding years. Notwithstanding the enforcement of a preliminary examination upon those who enrol themselves as medical students, their number falls but little short of that of the years preceding 1860, when the great rush of candidates for the profession took place. The number of members of the profession in Great Britain has decidedly diminished during the past few years, but this must be due more to the numerous openings for young medical men in India and the colonies, than from any dearth in the supply of medical students, since, with over a thousand pursuing their studies in London alone, the vacancies in the profession must be rapidly filled up.

It would be invidious to state the exact distribution of the new students, something like four hundred in number, amongst the medical schools of the metropolis. The old endowments still head the list, and if the Borough is ahead of Smithfield, the same thing has occurred in previous years. Of the two "Colleges" the more regal yields the *pas;* but it has still to repair the damage which its own rulers have inflicted on it by their injudicious measures. The three "saints" follow in natural sequence, the lady leading the way, and the remaining schools form a ruck, in racing phrase, which we need not further particularize.

We have no precise information respecting the numbers at the provincial schools, though we have reason to believe that they come up to the average standard, and the Irish schools are reported to be well attended; but as the Scotch session does not begin till November, it is impossible to ascertain at present what the number attending the northern schools will be.

A TWO-SIDED CHARITY.

ON the first establishment of the Metropolitan Association for Improving the Dwellings of the Industrial Classes, Earl Fortescue, then Viscount Ebrington, took a number of the Company's shares, which he distributed among different charitable institutions, thus in each case assisting two good objects instead of one. Some years afterwards, Miss Burdett Coutts took the same means of assisting in the establishment of the Strand Buildings Company; and, still more recently, Lord Stanley has disposed of his shares in the Improved Industrial Dwellings Company in a similar way. The same thing, though on a much smaller scale, has also been done in connexion with the Hastings Cottages Improvement Society; and it is believed that the chief reason why these examples have not been more extensively followed has been the small and uncertain amount of dividends hitherto paid by most of the societies established for providing improved house accommodation for the labouring classes. There is, however, one society at least of this kind which has always been able to pay good dividends, and which is likely to continue to do so. This is the London Labourers' Dwellings Society. Within the last few weeks four members of the Society have expressed their intention of investing the sum of £2200 in shares of this Society, the dividends on which are to be devoted to certain charitable objects and institutions: the London hospitals are to have one share of £100 each. Four of the directors have consented to act as trustees, and to pay the dividends from time to time in such manner as the donors may direct at the time of creating the trust. This will have the effect of securing to those institutions a perpetual annual income of 5 per cent. on the amount invested, and at the same time assist the operations of this most useful Society by enlarging its capital, and so enabling it to extend its improvements through the poorer districts of London. The hospitals would probably benefit doubly by this arrangement: overcrowding is a great cause of sickness, and the claims upon them would be diminished by the same charitable investments which add to their funds. The honorary secretary of the Society named is Dr. Greenhill, of Hastings.

LONDON SEWAGE.

THE Registrar-General has obtained from Mr. Bazalgette a return of the quantity of sewage discharged at the works of the Southern Outfall at Crossness, which shows that in the month of September the daily discharge was 46,229,675 gallons, including the yield of the land drainage, which necessarily varies from week to week. In the first week of October the daily discharge was 43,976,300 gallons, in the next week it fell to 37,443,771 gallons, and last week it rose again to 43,319,041 gallons.

The rainfall, of course, is the main cause of this fluctuation, and the diminished quantity of sewage in the second week of this month is due to the complete absence of rain; last week nearly nine-tenths of an inch of rain were recorded at Greenwich, and the effect on the sewage is apparent. In the month of September the daily supply of water pumped into the southern districts by the water companies was at the rate of 349 gallons per second, and the sewage discharged amounted to 535 gallons per second; the residual 186 gallons of sewage represent, therefore, proportionately the rainfall and general drainage of the southern districts in the month. When the northern main drainage system is complete we shall thus be able to see to a nicety what is the total amount of sewage proper from the whole of the metropolitan area; but Mr. Bazalgette says that "it will be quite a year and a half before we shall get the whole of the northern sewage discharged through the outfall sewer, because parts of the low level have to be constructed in the line of the proposed Chelsea embankment or the Metropolitan Railway."

As the Chelsea Embankment Bill was withdrawn last year its Parliamentary ordeal has yet to be gone through, so the "crowning of the edifice" of the London sewage system is postponed *ad Græcas Calendas.*

THE LAST OF THE BEANEY CASE.

MR. BEANEY is in danger of becoming an "institution." Having been triumphantly acquitted of a very grave charge, amid the plaudits of his fellow-citizens and to the full satisfaction of the profession, he allows himself to be made a martyr of by a host of journalists, whose zeal is by no means according to knowledge. Seriously, his cause runs the risk of being injured by his apologists. What else but harm can be done to it by scribblers who affect an opinion of their own on "*corpus luteum,*" and who continue to revile the already discomfited professional witnesses for the prosecution?—just as the Russians went about at Inkerman, prodding the killed, to ascertain if they were really dead. Such proceedings can only create a reactionary sympathy in favour of Mr. Beaney's enemies, as it assuredly tends to lessen the value of the judgment of his friends. In the bulky pamphlet entitled "The Queen *v.* Beaney," with medical notes and observations, by C. E. Reeves, B.A., M.D., indiscreet apology is pursued to the pitch when it becomes positively injurious to its client. Like the elephants in the Carthaginian army, the author, with his elephantine pleasantry, is continually "putting his foot in it," to the damage of his own side. Witticisms like the following are dusted over Dr. Reeves' pages as profusely as from a pepper-box:—"Mr. Rudall, who is a good hand at a pun, said jocosely 'Mind, old *ship's mite* (curculio), we are going on a speculating voyage. Beaney is to have the *wailing* and we the whales,"

&c. If Dr. Reeves expects us to laugh at this, he is very much mistaken. Compassion is the much more fitting emotion. Mr. Beaney ought to restrain such champions; otherwise the public and the profession will be apt to reverse the decision they have already pronounced, and which may be embodied in the words of Molière's physician—

"BEANEY, BEANEY respondisti!"

THE TREATMENT OF LUNATICS.

As we pronounced would be the case, the Commissioners in Lunacy have taken measures to elucidate the facts relative to alleged ill-treatment of a lunatic confined in a private house at Marylebone. Dr. Nairne, one of their body, examined the woman, and it would appear to be not a case of lunacy at all, and therefore not in the jurisdiction of the Board at Whitehall.

We are glad to find that the Commissioners act promptly in cases of alleged ill-treatment, wheresoever they occur; and it may perhaps be useful to state shortly the law as applied to lunatics confined by their friends. If the patients so residing are certified to be of unsound mind, as we think should generally be the case, they come of course under the provisions of the Act, and have regular supervision, are ordered medical attendance, and have the full protection of the Board of Lunacy. If the patient be not certified, the law does not interfere, except in cases where improper treatment, restraint, or wilful neglect is suspected; then the Commissioners, under the authority of the Lord Chancellor, make an examination, and, if they find neglect or bad usage, will proceed against the offending parties. The plea of ignorance as to the law will not avail; and the records of several cases attest the severity with which the law punishes the imposition of restraint or improper treatment of persons of unsound mind, even when such ill-treatment has not been due to either cupidity or neglect. The case of Charles Luxmoore, mentioned in the Eighth Report of the Lunacy Commissioners, illustrates our remarks: his brother-in-law was sentenced to six months' imprisonment for illegal and cruel detention of him as a lunatic. And many similar cases might be quoted.

There is much to be done in the treatment of the insane, but much has already been done, and the Commissioners we feel sure will not relax in their efforts to keep pace with the recent progress of psychological medicine—a progress, we may say, due so entirely to the medical profession.

Since the above was written, the result of the trial of two attendants charged with an assault upon a lunatic in the Surrey asylum is an evidence how jealously the law watches over the interests of the insane, and a proof of the responsibility that is incurred by their guardians. The keepers were found guilty, and sentenced to two months' imprisonment. We may recur to this case.

THE POLICE.

THE metropolitan police are an important body of men, upon whom the comfort and prosperity of the community in no small degree depend; we are glad, therefore, to find that the present chief surgeon to the force is taking steps to ensure a more perfect arrangement with regard to their medical treatment, which cannot but have a beneficial effect.

In a circular addressed to the divisional surgeons, Mr. Holmes calls attention to the absence of any records of the sickness occurring in the force, which not only prevents the compilation and use of much valuable statistical information, but renders the duties of the chief surgeon most unsatisfactory, from his having nothing whatever to guide him in the examination of any sick man sent before him except the certificate of the divisional surgeon. This certificate is generally expressed in the most laconic terms, and for the most part says nothing about the history or treatment of the disease, nor about the previous medical history of the patient—points on which the chief surgeon most naturally desires complete information. It is proposed, therefore, to furnish each station with a complete sick-register, giving the number, name, date of joining the force, previous sicknesses, and date of going on the sick-list—all of which will be filled up by the station clerk, whilst the surgeon will fill-in the nature of the disease and the treatment, with the result. Thus a valuable series of records will be obtained, which will assist the actual relief of sickness, and will furnish data which have often been sought in vain for comparison with other sick-statistics. It would be most interesting to learn the proportion of sickness of our civil army as compared with our military forces, and more particularly under metropolitan influences, which are known to be so pernicious to the soldier.

Since the police are thus carefully looked after, there can be no excuse for members of the force presenting themselves, as they frequently do, as patients at public hospitals. One reason of this no doubt is, that in cases of venereal disease the patients are anxious to conceal the fact from their superiors, partly from fear of loss of character, and partly from the fact that when upon the sick-list some deduction from pay takes place. The medical officers of our public institutions should refer such applicants to their divisional surgeon.

THE PITFALLS OF FEVER STATISTICS.

WE have before us the report of that most useful institution, the City of Glasgow Fever Hospital, for the year from April, 1865, to April, 1866 (the first of its existence), which has been ably drawn up by the resident physician and superintendent, Dr. Jas. B. Russell; and we recommend it to the careful study of all who are interested in the treatment of epidemic diseases, for it deals thoroughly with certain important questions in connexion with this subject. The points which are particularly worthy of attention are the following: the remarks on the selection, training, food, and lodgment of nurses for fever wards (an important and highly special branch of hospital nursing), the advantages of the "pavilion" construction for fever hospitals, and the elaborate statistical inquiries by Dr. Russell into the question of mortality. Upon this latter topic we must say a few words, based on Dr. Russell's meritorious inquiry.

The investigation includes, *inter alia*, a comparison of the typhus mortality (in quinquennial periods of life) at four hospitals—viz., the City of Glasgow Fever Hospital, the Glasgow Royal Infirmary, the London Fever Hospital, and the Royal Infirmary, Dundee. The first apparent result is startling. The mortality at all ages in the Glasgow Fever Hospital is only 11·09, and that in the Dundee Infirmary only 9·3 per cent.; while the mortality in Glasgow Royal Infirmary is 14·27, and that in the London Fever Hospital is 19·7 per cent.! This is the first fact that strikes the eye; and a more instructive study could hardly be undertaken than that of tracing, in the minute comparative details of Dr. Russell's tables, the fallacies into which an incautious observer of it would be likely to stumble.

It is well known that the mortality from typhus is very small in young subjects compared with that which is observed in adults, and especially in old people. Now the first fact which is revealed by a careful analysis of the tables is, that while in the London Fever Hospital only 35·23 per cent. of the patients are below the age of twenty, in the Glasgow Fever Hospital nearly 51, in the Glasgow Infirmary 45·74, and in the Dundee Infirmary 51·38 per cent., respectively, of all the cases, are below that age. Turning to the other end of the scale, we find that in the London Fever Hospital 25·39 per cent. of the patients are above the age of forty, while in the Glasgow Fever Hospital only 11·52, in the Glasgow Infirmary only 11·34, and in the Dundee Infirmary only 15·03 per cent., respectively, have passed that period of life. Of cases between

twenty and forty the proportion per cent. to the grand total is—at the London Fever Hospital, 39·87; at the Glasgow Fever Hospital, 30·50; at the Glasgow Infirmary, close upon 42; and at the Dundee Infirmary, 33·49, respectively. If now we take the comparative mortality at this middle period of life in the four hospitals (the number of cases approaching each other more closely than at other periods), we find it runs thus:—London Fever Hospital 17 per cent.; Glasgow Infirmary, 16 per cent.; Glasgow Fever Hospital, 16·2 per cent.; and Dundee Infirmary, 9·6 per cent. Thus, Dundee is the only one of the three hospitals which has preserved any very important superiority over the London Fever Hospital during this period. If we now go back to the quinquennial period between fifteen and twenty—which Dr. Russell clearly shows to be a period of universally high fever mortality compared with the earlier years—we find that London stands close to Dundee (4·6 and 4·2 per cent., respectively), while Glasgow Infirmary has a mortality of 6·2, and Glasgow Fever Hospital of 7·3 per cent.

It will be obvious from these facts that *general* comparisons between the mortality in fever wards in different cities, and especially when taken in the gross, without careful distinction for short periods of life, are not only futile, but dangerously misleading. The 19·7 per cent. mortality in the London Fever Hospital is a circumstance which we have frequently heard enlarged upon, invidiously, by persons quite ignorant of the fundamental principles of vital statistics. It must be evident, however, to anyone who has followed us, that by far the larger part of this apparent excess of mortality is due to the mere influence of the *age* of the patients. And no thoughtful person can avoid the further reflection that local influences, which (as it is now seen) can so powerfully modify the extent to which typhus shall attack the aged, may also intensify its lethal influence upon these feebly resisting constitutions. In short, we are inclined to go even further than Dr. Russell, and to declare that so far as we can see there is no proof, nor even likelihood, that differences of treatment have exercised any appreciable influence whatever upon the comparative results of typhus cases in the four hospitals whose statistics he has cited; and we have preferred to bring out this important point rather than dwell upon the other numerous matters of interest which may be found in Dr. Russell's excellent report, which we heartily commend to the attention of the whole profession.

DR. WALTER DICKSON, in his annual report on the health of the Customs officers, refers to some cases of injury which became the subject of law-suits. A certain proportion of of cases of the kind occur annually in the department, some of which are referred to the law courts, and others settled by arbitration and mutual agreement. He regrets that the latter course cannot always be adopted. The mental anxiety and excitement entailed by a law-suit often affect most perniciously the health of the injured person, and greatly aggravate the shock to the nervous system originally caused by the accident. By timely arbitration or compromise, the question of compensation may generally be settled as satisfactorily to the pecuniary interests of the sufferer, with less delay, and without that unwholesome excitement and spirit of speculation which he has observed to be engendered in the officers of the department, and to have a very injurious influence both at the time and afterwards.

WE are glad to observe that Mr. Alderman and Sheriff Waterlow has moved the Corporation of London not to grant any fresh leases of certain property belonging to them in the parish of St. George's-in-the-East, unless with provisions for removing the dens of filth and disease now occupying the ground, and erecting houses and buildings suitable for the wants of the people, and fitted with proper appliances for health and cleanliness. Mr. Hardy said truly that the miserable condition of the poor in London is due partly to the default of local authorities and partly to the default of landlords. One great impediment to improvement in the East of London is the system of short leases. Sir Mordaunt Wells, who has been personally and most actively investigating the state of things there, is of opinion that if these leases were done away with, and the property dealt with as freehold, streets of houses would be built fit for the people to live in. Corporation leases should be models.

THE prosecution instituted by the authorities of the Middlesex Hospital against a late patient of that institution for an alleged libel on one of the nurses has terminated in a rather singular manner. The prisoner was put upon his trial last Monday at the Old Bailey. He pleaded "Not guilty," and said that what he had done was for the good of the hospital. The evidence for the prosecution included that of two of the medical officers, and this evidence went to show that the patient with whom the nurse was said to have committed herself was in such a state as to render the alleged act an impossibility. The cross-examination, however, of the witnesses for the prosecution elicited the fact that no one nurses had been discharged, and that complaints had been made against others. The evidence for the defence rested chiefly on the character of the individual who made the charge: that character appeared to be excellent. A remarkable colloquy took place between the judge and the jury, from which it seems that the authorities of the hospital will probably be saddled with the costs of the prosecution and defence. The result of the discussion on their finding was, that the statement of the prisoner was a *bond-fide* communication made with the view of having the matter fairly investigated, in which the prisoner, as a patient, had an interest. This amounted to a verdict of acquittal, and entitles the defendant to bring an action for costs, which his counsel said should immediately be done.

OUR contemporary, the *Standard*, had a leader a few days ago on the fact that Dr. Lankester had required the presence of the prisoner Scott, charged with the murder of his wife, at the inquest. The exordium of our contemporary's leader was quite irrelevant. The investigation of the coroner has not yet become so unimportant as the article in question would seem to imply. The coroner and his jury make the freest inquiries into the facts of suspicious deaths. They are often the first to institute these inquiries, and to make important discoveries. They have the power to commit for trial, and, short of this, of expressing very condemnatory judgment. For all these reasons it is due to the coroner and the jury on the one hand, and to suspected persons on the other, even if already in custody, that the prisoner should be present. When far less interests are at stake than a man's life it is proper that the accused should be brought face to face with all the witnesses and with all that are to decide upon the evidence. This is a higher consideration than the superiority of a legal over a coronatorial investigation, with which the writer is so much impressed. The public generally will agree with us in approving Dr. Lankester's practice and that of his predecessor, Mr. Wakley, in this respect. It is of much greater importance that even a murderer should have fair play than that a magistrate should be slightly inconvenienced by the postponement of his examination of the criminal.

THE report of the medical officer of health for the city of Lincoln, Dr. Harrison, is a satisfactory and instructive document. Satisfactory, that is to say, viewed by the light of the sanitary condition of other places. The mortality of Lincoln for the quarter ending September is at the annual rate of 22 per 1000. Still, more than half the mortality is that of children under five years of age. One instance of overcrowding is given, not unworthy of Liverpool, in which two adults and six children

slept in a room of the capacity of 700 cubic feet. It is not surprising that there are many deaths from phthisis, marasmus, and tabes. Dr. Harrison gives an instructive illustration of the spread of small-pox by a young man who contracted the disease in Sheffield and came home to a village near Lincoln. In a few weeks, more than twenty cases had occurred, with one death (an unvaccinated child), in the village, previously free from the disease. Typhus and typhoid fever are, the report says, almost unknown now in Lincoln; but it adds, "common continued fever" became prevalent in September, and occasioned two deaths. What form of continued fever is this which is neither typhus nor typhoid? It is evidently a little early to speak of fever being unknown.

A WRITER in *The Times* disputes the statement in the summary of news brought by the mail from the West Coast of Africa to the effect that the general health of the Europeans at the rivers is good. On the strength of private and authentic letters he gives particulars of at least one terrible exception to this statement. At Bathurst, on the Gambia, for two months preceding the departure of the mail yellow fever had been raging terribly. One-half of the European population had perished, and there were two months more of the unhealthy season before them. What can be the explanation of this discrepancy of report? It looks very like a designed misrepresentation of the sanitary condition of the West Coast of Africa. Perhaps it is only a careless one. In any case it is a false one, and we should be glad, with the writer of *The Times*, to have it corrected by fuller information of the state of the coloured population of the garrison, both at this and other stations.

THE *Daily News*, commenting on the prospects of cholera, refers to the statistics of former epidemics, which we recently published, in confirmation of the probability of a severer outbreak of the disease next year, and dissents from the cheerful conclusions which have been drawn by comparing the present epidemic with those of 1849 and 1854. As we have shown, the weekly progress of the disease in the several periods has been so divergent hitherto as to preclude satisfactory comparison.

AT a recent meeting of the Paddington Vestry one of the members asked for copies of the communication of the Poor-law Board to the vestry concerning the recent inquiry into the workhouse management, and the recommendations which had been made. He was told, however, that this was no business of his, and the communication was one which the guardians did not wish to put in the window. The unfortunate querist having been sufficiently snubbed, the next business was called. Of course, the guardians are aware that these documents are not private but public property, and that the management of their workhouse is not a private but a public concern.

WE learn that Sir Thos. Watson, Bart., M.D., F.R.S.; Dr. Acland, F.R.S.; Dr. Sibson, F.R.S.; Mr. Charles Hawkins, Mr. T. Holmes, Dr. Randall, together with Mr. Corbett, Dr. Markham, and Dr. Smith, have been appointed by the President of the Poor-law Board as a Committee to consider the subject of cubic space and hospital accommodation in the metropolitan workhouses.

RATES OF MORTALITY AND INCREASE OF POPULATION.

IN these days of awakened interest in the study of sanitary science, it is essential that, as far as possible, the observations which are in process of record by medical officers of health and others should be uniform in the principles adopted in arriving at and stating results. Without uniformity, the most elaborate investigations serve rather to perplex than to clear up doubtful points in the field of inductive analysis; and to this reason is for the most part attributable the fragmentary and unsatisfactory character of much that goes by the name of vital statistics—a science which has, indeed, almost been created, or at any rate placed on a trustworthy basis, within the last twenty years.

In physical and ethical science definitions lie at the very threshold of their *arcana;* and in pure mathematics a clear perception must be attained that certain symbols are to bear always a precise and unvarying signification. But in statistics the most perfect freedom of interpretation is very generally assumed; hence the rare instances in which the results arrived at by two independent observers are strictly comparable. This diversity comes out especially in an examination of the innumerable reports which are now issued by sanitary authorities throughout the country upon the health of different localities. One gentleman will apply the term "mortality" or "rate of mortality" to the actual number of deaths recorded; another applies the same terms to the ratio of deaths to population without the slightest reference to *time;* whilst a third speaks of the "death-rate" in a sense common to both the preceding conditions, as well as with reference to the ratio of the three elements—population, deaths, and time. This "convertibility of the note" is productive of the utmost confusion, and renders any attempt to reconcile the statements one with another almost hopeless. We have therefore thought it advisable to do what we can to induce observers to work upon a common principle, so as to render the independent reports on the health of towns comparable one with another, and also with the statistics of the Registrar-General's department. Dr. Farr has over and over again urged this matter upon the attention of health officers and others taking an interest in vital statistics, and we cannot do better than follow the formulas and definitions, of which many years of patient study have assured to him the correctness.

The term "*rate of mortality*" ought then never to be applied to the actual deaths recorded. Its true application involves three elements—(1) persons living, (2) deaths, (3) time; and if these compound elements are lost sight of, very erroneous results will arise. For instance, if the deaths in a quarter or half a year be applied to the population living at any given point of time in the year, the result will certainly be a death-rate, but not a true rate of mortality. Furthermore, the deaths in any locality may be doubled or trebled, or even greatly diminished, without the fluctuation affecting the rate of mortality, which is solely determined by the ratio which the deaths bear to the *years of life*—a year of life, as the fundamental unit, representing one person living through a year, or two persons living through half a year, and so on. The persons living at any given instant multiplied into the *time* during which the deaths occurred will give the years of life corresponding with the death-period; or the population may be assumed to represent the numbers living through a year, and the deaths be reduced or increased (as the case may be) to the same period of time. Thus if the deaths relate to six months, they may be multiplied by 2, and they would then be divisible by the population *pur et simple;* and this proceeding is, in fact, analogous in its application to the old arithmetical principle of reducing both divisor and dividend to an equality of denomination.

It is desirable to adopt a uniform period of time as the basis upon which to calculate all rates of mortality; and for this reason the Registrar-General's Weekly Return always shows the *annual* rate of mortality of London and the other towns mentioned in each successive week. For instance, the deaths in London last week were 1464, and the rate of mortality is given as 25 *per annum* to every 1000 persons living; this result being obtained either by multiplying the weekly deaths by 52, or by dividing the population by 52, which reduces both terms to an equality. The same rule holds good for any interval of time. If, for example, the actual population living

in a district were 100,000, and the deaths in that district during a year were 1000, then the mortality would be at the rate of 10 per 1000 per annum; but if the 1000 deaths occurred in six months only, the *annual* rate of mortality during the six months would be 20 per 1000. The general principle which is adopted uniformly, as we believe, by Dr. Farr in all his official reports, is to apply the term *rate of mortality* invariably to the calculated ratio which the deaths bear to the population in a given time, and to adopt a year as the unit of time, so that the result always will be an annual rate of mortality. The term *death-rate* is only applied to a ratio between the two elements of population and deaths, without reference to time, examples of which will be found in many of the calculated tables relating to cholera which have recently appeared in the supplements to the Registrar-General's Weekly Return. Again: it is important to bear in mind that the population, or years of life, used as the divisor should correspond as nearly as possible with the numbers out of which the deaths occurred. The population living at the Census period of 1861 is known exactly; but if it were applied to the deaths registered in that year the result would overstate the rate of mortality, because the population increases, and would be greater at the end than at the beginning of the year. The usual course is to estimate the population to the *middle* of any given year as the nearest approximation to the numbers living throughout that year; and that estimate is generally based on the assumption that the rate of increase observed between the last two census periods continues to rule subsequently. Of course this hypothesis may in many cases be inapplicable, such as when any special movement of population has taken place in a district; but in the absence of specific knowledge on this point, and of enumerations at short intervals, the hypothesis may more safely be used than a calculated increase based on the excess of births over deaths, which is disturbed by migration, and cannot be relied on.

And this brings us to a matter on which we are frequently interrogated—namely, how this hypothesis is to be applied. It is not by any means a simple matter, and the difficulty arises from the fact that population naturally increases by geometrical progression, or by equal proportions in equal intervals of time, just as money invested at compound interest does. If the increase were in an arithmetical ratio simply, or by equal numbers in equal intervals of time, the process would be easy enough. We can best illustrate the different conditions by an example: The enumerated population of the district of Liverpool at the census of 1851 was 258,236, in 1861 it was 269,742, and the actual increase in the ten years was 11,506, or 4·45 per cent., and by pure arithmetical progression this rate would be maintained *ad infinitum*. But this would be so palpably wrong that a mixed progressional ratio would always be adopted; and thus while the decennial rate would be a geometrical ratio, the intermediate annual rate would be an arithmetical ratio of progression. We may then proceed thus:

258,236 : 11,506 :: 269,742 : 12,013

and hence we conclude that in the ten years 1861-71 the increase will be 12,013, or 1201 every year. On this plan the estimated population for each year would run thus:

			Annual increase.		
Enumerated	1861	269742	+1201·3 = 270943·3	estimated	1862
Estimated	1862	270943·3	+1201·3 = 272144·6	,,	1863
,,	1863	272144·6	+1201·3 = 273345·9	,,	1864
,,	1864	273345·9	+1201·3 = 274547·2	,,	1865
,,	1865	274547·2	+1201·3 = 275748·5	,,	1866
,,	1866	275748·5	+1201·3 = 276949·8	,,	1867
,,	1867	276949·8	+1201·3 = 278151·1	,,	1868
,,	1868	278151·1	+1201·3 = 279352·4	,,	1869
,,	1869	279352·4	+1201·3 = 280553·7	,,	1870
,,	1870	280553·7	+1201·3 = 281755·0	,,	1871

The estimated population, say in 1866, would thus be obtained by adding 5 times 1201·3 (= 6006·5) to the population in 1861. But this method is incorrect, because it assumes the ratio of increase in the intermediate years to be by arithmetical instead of geometrical progression; and to make this clear we must give an example of the correct mode of estimating the annual increment, which the use of logarithms greatly facilitates. In fact, the process of deducing the annual rate of increase by common arithmetic will be best appreciated when we say that the *tenth root* of the decennial increase would have to be extracted—an operation by no means pleasant to contemplate.

To estimate the population of the district of Liverpool in the *middle* of the year 1866 proceed thus:

Pop. 1861 = 269742 ... 5·4309486 = logarithm of pop. in 1861
Pop. 1851 = 258236 ... 5·4120168 = ,, ,, 1851

0·0189318 = log. rate of increase in 10 yrs.

0·0018932 = ,, ,, in 1 yr.

Now the Census was taken in April, 1861, and the interval between that date and the middle of 1866 is 5¼ years; therefore multiply the logarithm of the annual rate of increase by 5¼, and add the result to the logarithm of the enumerated population in 1861:

0·0018932 = log. annual rate
5¼

0·0099393 = 5¼ log. annual rate
5·4309486 = log. pop. in 1861

5·4408879 = log. estimated pop. in the *middle* of 1866;

and the number to this logarithm is 275,987, which is the estimated population of the district of Liverpool in the *middle* of 1866, on the hypothesis that the population has increased since 1861 in the same ratio as between 1851 and 1861.

To illustrate the difference between the correct and the incorrect method of obtaining the intermediate annual increment more clearly, we will place the results in juxtaposition:

	By arithmetical progression.			By geometrical progression.	
	Estimated population.	Annual increment.		Estimated population.	Annual increment.
April, 1861	269742		...	269742	
,, 1862	270943·3	1201·3	...	270920	1178
,, 1863	272144·6	1201·3	...	272104	1184
,, 1864	273345·9	1201·3	...	273293	1189
,, 1865	274547·2	1201·3	...	274487	1194
,, 1866	275748·5	1201·3	...	275686	1199
,, 1867	276949·8	1201·3	...	276890	1204
,, 1868	278151·1	1201·3	...	278100	1210
,, 1869	279352·4	1201·3	...	279315	1215
,, 1870	280553·7	1201·3	...	280535	1220
,, 1871	281755		...	281761	1226

The discrepancy would be much greater in districts where a larger increase of population had taken place.

We may observe, in conclusion, that anyone unacquainted with the use of logarithms could acquire sufficient knowledge therein for the above calculations by a few minutes' perusal of the instructions given in the preface to all logarithm books; all that is requisite to know being comprised in looking out the logarithm to a number and its converse.

THE SANITARY CONDITION OF SALTBURN.

WE publish in our present number two important letters, one from a gentleman visiting at Saltburn, who fully endorses our statements respecting the want of attention to sanitary matters displayed there, and the other from the secretary of the Saltburn Improvement Company, which requires some notice on our part. Mr. Mac Nay opens his statement by impugning the memorial from the inhabitants of Saltburn, (THE LANCET, Oct. 13th,) and proceeds to speak of our articles as "*designed to injure*" some persons; we presume he

means his employers. We notice the statement only to refute the charge of designing to injure anyone connected with Saltburn. Our object in calling attention to the "insalubrity" of Saltburn was to incite its authorities to improve the sanitary condition of the place while there is yet time and opportunity, that they may be saved from one of those sweeping epidemics which neglect of sanitary measures infallibly produces, and which would most seriously compromise the character of their beautiful "health-resort."

We are content to take Mr. Mac Nay's own division of the subject, and will proceed to consider it *seriatim*. There is no denial that the sole supply of water is from the brook or "burn" which runs into the sea at this point. An analysis of the water made in 1864, even though it be confirmed in 1866, can hardly be satisfactory to the drinkers of it who are aware of the following facts, which we have ascertained to be of undoubted authenticity. Just above the spot where the supply of water is taken from the brook are situated the kennel of the Cleveland hounds and the stables of the huntsman's stud. If there is not actually a drain from these leading into the brook, it is absolutely impossible, from the position of the kennel on the bank of the stream, and from the physical conformation of the locality, for the liquid manure of the establishment to find its way in any other direction than towards the stream. A short distance above this there is an undoubted drain leading from Rushpool Hall, and conveying the refuse of that establishment, in part at least, into the brook. Again, a quarter of a mile higher up stands Marske Mill, placed on the stream, with adjacent cow-yards, pigstyes, and stables, and a privy which is within a couple of feet of the water, and from which the ordure passes directly into it. Two miles up the stream are two villages, and five miles distant is the town of Guisbro', and these, one and all, assist in polluting the stream from which the inhabitants of Saltburn take their supply of water.

Mr. Mac Nay allows that the position of Saltburn "would render defective drainage highly culpable," and proceeds to speak of the size of the drain-pipes. Granted that the pipes are what they should be, the question still remains unanswered as to the outfall of the main sewers. We find that the outlet of the main sewers is blocked by a "filter-bed," which leaves a stream of muddy sewage of an undoubtedly excrementitious character to run on into the sea. The sewer is not carried below low-water mark, but pours its contents into a little stream at the foot of the cliffs, which permeates the extensive sands, and has to traverse a great breadth of them at low-water, when the stench on hot days becomes intolerable. We give the authorities credit for attempting to ventilate their sewers, but one four-inch pipe at the head of the system is insufficient ventilation for extensive sewers of fifteen inches diameter.

We are ready to give the Saltburn Company every praise for the manner in which they have laid out the ornamental "glen" which forms a part of their property; but with regard to the building of houses we cannot but regret, notwithstanding the secretary's views, that long rows of houses are being built, which, according to his own statement, have but twelve feet of back road intervening, and which there is no denying do in many cases possess "cellar-kitchens"—i. e., kitchens the roofs of which are on the level of, or but little above, the pavement.

With regard to the prevalence of fever, Mr. Mac Nay triumphantly quotes the Registrar's return, and informs us that in 1865 there were but seven deaths (two from diarrhœa), and in 1866 to the end of August, seven deaths (one from typhoid fever and one from diarrhœa). We are happy to learn that the death-rate has been so low, but this is no proof that disease has not prevailed, though fortunately not of a fatal type. From information other than that which Mr. Mac Nay has obtained, we know that typhoid fever *has* prevailed to a considerable extent during the last two years, and from the concurrent testimony of several medical practitioners we state advisedly that over thirty cases, some of them severe, have occurred. The laudatory quotations given by Mr. Mac Nay were, we believe, written two years since. Possibly the writer may see reason now to alter his views, and we would strongly advise the Company, in its own interests, to be guided by medical opinion in matters which concern the health of the community. If, like Brighton and other places, Saltburn will at once put its house in order, there need be no fear of lack of health and prosperity.

Correspondence.

"Audi alteram partem."

SALTBURN-BY-THE-SEA.

To the Editor of THE LANCET.

SIR,—Under this title, in your number of September 29th, you inserted an anonymous article respecting Saltburn-by-the-Sea, and in your issue of October 13th I see a paper purporting to be the sentiments of seventy-eight residents at Saltburn, respecting the water, &c. I say *purporting*, because if you could know as well as I do the origin of that document, and the pretexts used in canvassing for signatures, you would attach very little value to it. I might reasonably take objection to the publishing of these articles without name or without notice to those whom they are designed to injure; but as every truthful representation of the place can but lead to its prosperity, I will only regret the appearance of the articles in question, so far as my reply to them may not in all cases be read by those who have believed the allegations, but knowing that your pages are equally open to this reply as to the statements in question, to which I proceed to take objection.

The two articles being substantially to the same effect, I shall treat them as one, their origin being one under a double guise. The allegations appear to be classed under "*water-supply, defective drainage, narrow streets, prevalence of fever*, and the *ravages of disease*."

1st, as to water, they say: "The water we have to use is quite unsuitable for domestic purposes." In reply to this I give you the following analysis and remarks from probably the highest authority in the north of England. The samples upon which these reports are made were taken from the Zetland Hotel when the water was in its usual or normal state, and I shall be only too glad to hear of any other competent party repeating the process. I may add that the water consistent with this analysis is almost invariably brilliant in the glass, and agreeable to drink.

"College of Medicine, Newcastle-on-Tyne.
Assay Office and Laboratory,
28th November, 1864.

Certificate of analysis of water taken from the cistern at the Zetland Hotel, Saltburn-by-the-Sea.

Contents of Imperial gallon.	Grains.
Chloride of sodium	4·67
Sulphate of soda	1·46
Sulphate of lime	7·75
Carbonate of lime	7·60
Carbonate of magnesia	6·65
Silica	0·90
Organic matter	1·33
	30·56

"The water contains neither ammonia nor nitrates, and the organic matter is of vegetable origin. The quantity of solid matter in the gallon is below the average, and we consider this water well adapted for domestic purposes.

(Signed) "RICHARDSON AND BROWELL."

"17, Framlington-place, Newcastle-on-Tyne,
Nov. 28th, 1864.

"DEAR SIR,—I have the pleasure to enclose certificate of analysis of the water from Saltburn Hotel, which I am glad to say is so well suited for the purposes of the hotel. It is not a soft water, but is an excellent drinking water.

I am, yours very truly,

(Signed) "THOMAS RICHARDSON.

"Thomas Mac Nay, Esq."

Subsequently, on examining a sample of water from the same source, they reported as follows:—

"We have also examined the water from the Zetland Hotel, and need only remark that it continues of good quality.

(Signed) "RICHARDSON AND MARRECO.

"June 11th, 1866."

"*Narrow streets.*"—The streets and drives are of widths varying from fifty to eighty feet wide, with the exception of two short cross streets not exceeding eight cottages in length, and in every case the houses have a through back road of not less than twelve feet; but these dimensions give no idea of the prodigality with which space is left open to the public, and that where land is highly valuable, not "*valueless*," as stated in your article.

"*Drainage.*"—The position of Saltburn-by-the-Sea, upon a bold headland 150 feet above the beach on the one side, and a wooded ravine up which the spring-tides flow on the other, would render defective drainage highly culpable. What is the fact? The whole area set out for building-ground, whether already built upon or not, is fully sewered to the depth of from nine to twelve feet with glazed pipes. The main sewers are fifteen inches in diameter. This size is greatly in excess of present requirements. In no case is the fall less than one in seventy, usually a great deal more. Advantage is taken of a lofty tower for a pipe to carry off the gases, and there is ample opportunity of flushing the sewers whenever required, the water-supply being on the town constantly; and I may add incidentally that sea water is regularly pumped up to the hotel, and may be laid on to other houses as required. The owners of houses having drains acting with the main sewers are required to have them properly trapped.

"*Prevalence of fever and ravages of disease.*"—How far the statements have sufficiently foreshadowed the figures which I am about to produce I will not pretend to say; nevertheless I give them as I find them for the years 1865 and 1866, being the periods respecting which these charges are made.

"Register: Saltburn, situated in the district of Marske."—I find, in all, that seven deaths were registered for the year 1865, as follows:—Male, one day old; convulsions. Male, four months; diarrhœa. Male, five months; croup. Female, sixty-four years; heart-disease and diarrhœa. Male, four months; chest affection. Female, five months; diarrhœa. Female, fifty-four years; visitation of God. In 1866, to the 31st day of August (being the last entry), seven deaths: namely—Female, five years old; typhoid fever. Female, five weeks; congestion of lungs. Female, ten weeks; marasmus. Male, ten months; disease of brain and symptoms of effusion. Male, fifty-six years; heart-disease. Male, seventy-five years; apoplexy. Male, one month; diarrhœa.

Now, Sir, you will fairly ask, What is the number of the population to which these returns refer? The place having attracted attention only since 1861, I have no census returns to give you. It is, however, not so large but that, by taking the number of houses and the character of their occupation, I can make a very approximate estimate; and this I take for the average of 1865 at 500, and for 1866 at 700, with probably a maximum during the bathing season in the latter year of about 1400. Everyone can read these figures as well as I can, and they will come to their own conclusions how far they indicate the "ravages of disease" or a remarkable seaside "insalubrity." No doubt one case of death from fever has taken place, and three infants, in the two years, appear to have died from diarrhœa whilst yet at their mothers' breasts; and I presume that even those who find it so difficult to make a case against the purity of the water will easily venture to urge that it is chargeable with these deaths.

I cannot better conclude than by giving you the following extract from the published opinion of a medical resident:—"It must be granted that Saltburn is a place of more than ordinary excellence as a seaside resort. It has already become famous even at this early stage of its career, and the more it is known the more it is liked. The voices of those who have visited it are unanimous in its praise; and it requires only time and further experience to cause it to be frequented in the winter as well as in the summer."

The same authority states: "This town in short, although quite in its infancy, is already furnished with all the common requirements of civilized life, and, possessing as it does natural qualities and characteristics of so unusual an order, must quickly grow into a vigorous and lasting maturity. Its natural advantages are such as to make it at once a most attractive and favourite resort. The foresight that has descried so favoured a spot, and the enterprise that has seized upon it and brought it to its present condition, will still be engaged in developing and expanding its resources; and there can be very little doubt that in a short time hence Saltburn-by-the-Sea is destined to become one of the most celebrated marine watering-places in the British Isles."

I am, Sir, your obedient servant,

J. E. MACNAY.

For the Chairman and Committee of the Saltburn Improvement Company.

Darlington, Oct. 17th, 1866.

To the Editor of THE LANCET.

SIR,—You have been making some remarks lately on the sanitary state of Saltburn-by-the-Sea. I have been a visitor there for some weeks past, and can testify from personal observation to the correctness of the remarks made by you, and to the truthfulness of the memorial which you have published. I may state also that I have accidentally come across the answer to that memorial. I fear that if the investigation promised in that answer be carried on in the spirit in which it is too evident the answer has been written, it will not be of much use.

The Saltburn Improvement Company have already done much to set visitors against the place, and seem determined to go on as they have begun. They are, in my opinion, doing their best to ruin what ought to be, and might be, one of the most, if not the most, beautiful seaside places in England.

I can state also that other visitors to whom I have spoken on the subject have entirely coincided with me in this opinion.

I am, Sir, your obedient servant,

T. CARTERET MAULE,

Saltburn-by-the-Sea, Oct. 15th, 1866. Rector of Cheam, Surrey.

VOLUNTEER SURGEONS IN BELGIUM.

To the Editor of THE LANCET.

SIR,—I joined the Volunteer movement from its commencement in 1859, and received my commission as battalion surgeon in December of that year. Tempted by the invitation of the Belgians, I arrived in their capital on the morning of the 12th instant, and at once reported myself, through our divisional commander, to Colonel Loyd Lindsay, as ready for duty. I attended each day such parades as were ordered, and fully expected to be included in those special invitations which other officers of my rank received. Judge, then, of my surprise on finding that not only lieutenant-colonels and majors were invited to the palace at Laeken, but, at a second dinner given by the King, even captains had the honour of dining with his Majesty; while, with the exception of Surgeon Ward, who (from early application, I presume, certainly not from seniority) had been nominated to the staff, no medical officer was considered worthy of the distinction.

If this, Sir, is a recognition of a medical officer's position in the service, then, I think, the sooner he resigns his commission the better.

In thus making public my complaint, I would not be thought to reflect for one moment on the hospitality of the King of the Belgians, but rather to call attention to Colonel Lindsay's neglect in failing to secure equality of privilege for equality of rank to those who attended the late festivities at Brussels.

I am, Sir, yours obediently,

JOHN T. GRIFFITH, M.D., F.R.C.S.,

Battalion Surgeon 1st Surrey Rifles.

Talfourd House, Camberwell, Oct. 20th, 1866.

*** Dr. Griffith certainly has just ground for complaint, and has shown a commendable spirit in vindicating the rights of Volunteer surgeons. When will those rights be properly acknowledged? The first Napoleon characterised the services of the celebrated Larrey in the spirit and with the acumen of a great general. We cannot expect his example to be followed by those who are totally unacquainted with the exigencies and disasters of real warfare. Common civility might, however, have dictated to the Commander-in-Chief of a Volunteer army at least a small appreciation of the non-combatant arm of his forces.

THE Hospital for Sick Children, Kingsholm, Gloucester, is nearly completed, and is to be opened at Easter. The following gentlemen constitute the medical staff:—Dr. T. Evans, consulting-physician; Dr. B. Washbourn; Mr. Caleb Barrett, and Mr. Ryves William Graves.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

THE Liverpool School of Medicine commenced its session on the 1st of October with a larger entry of new students than it has had for several years, no less than twenty-one new men having entered. The appointment of a very able gentleman—Dr. Davidson—to the chair of Comparative Anatomy and Physiology, a chair which has hitherto been vacant, and the improved arrangements connected with the Lectures on Chemistry—a laboratory having been fitted up in the building, in which the newly appointed lecturer, Dr. Birkenhead, can give Practical Demonstrations,—with other changes, indicate an attempt on the part of the School Committee to raise its character above the very second-rate position it has held for some years amongst provincial schools. Mr. Bickersteth takes the Lectureship on Surgery, in the place of Mr. Long, and Mr. Steele and Dr. Gee those of Midwifery and Diseases of Women and Children, in the room of Messrs. Batty and Grimsdale. The opening address of Mr. Reginald Harrison, the Lecturer on Anatomy, was a very interesting one.

The Medical Society of Liverpool has also commenced its session, and two meetings have been held: at the last, a paper was read by Mr. Steele "On the Use of the Midwifery Forceps," in which he gave the history of the instrument from its first introduction. The Society's meetings this winter promise to be of unusual interest, as several papers on subjects of present importance have been announced.

It is sad when from among the younger members of our profession one of the most energetic and zealous of its workers is taken away. Such a one was F. D. Fletcher, who died last Thursday (18th inst.) at Southport, at the early age of thirty-seven. As surgeon to the Liverpool Workhouse, as lecturer on Anatomy and Physiology at the School of Medicine, and as surgeon to the Hospital for Infectious Diseases, of which he was the chief originator, he was well known. A pleasant and agreeable writer, contributing articles to many periodicals, medical and others, and a fluent speaker, he was fast rising to eminence. Of delicate conformation, he overtaxed his powers in the amount of work he imposed upon himself. Pulmonary disease manifested itself about two years ago. Buoyed up by hope from the anomalous character of many of the symptoms, he tried a voyage to Australia. It was in vain; he returned but little benefited, and in the spring of this year retired to Southport, being quite unable to practise. Throughout his professional career he had been remarkable for earnest piety and deep religious convictions; and through his long and weary illness they stood him in good stead, so that at the last he passed away peacefully to his rest.

The cholera is rapidly declining in the town. The deaths for the week ending Oct. 20th were 38; Oct. 13th, 53; Oct. 6th, 99; Sept. 29th, 116. The Ashfield sheds have been closed, and the few patients that are now removed from their homes suffering under the disease are taken to one of the workhouse hospitals. That the disease will disappear altogether is hardly to be hoped for. It has shown itself in so many places, not only in this town, but in neighbouring towns and villages, that though its victims may be few during the winter months, yet with the advent of spring it is much to be feared that in one of these many infected spots it will burst again into activity. We know that such has been the case in former epidemics, and there is greater reason to apprehend it now, when town and country alike abound with spots where the poison may lurk and germinate under the most favouring conditions. Such is the neighbourhood of Southport, a wateringplace to which so many Liverpool and Manchester families resort. On its outskirts are two hamlets, Little London and Little Ireland, where cholera has been raging, and in which the people are described as living in a state of semi-barbarism, in a most filthy condition.

As for Liverpool, the authorities certainly fail to realise the unenviable notoriety it has attained. They are so accustomed to hear it spoken of as the most unhealthy town in the kingdom that the very words pall their senses, and cease to convey any feeling of grave responsibility to their minds. How else can we explain the fact that at the Town Council meeting to be held to-morrow (Wednesday) improvements which will cost £350,000, recommended by the Improvement Committee, come on for consideration,—these improvements, with trifling exceptions, being to widen streets already wide enough, to make crooked ones straight, and thus to improve the appearance of the leading thoroughfares of the town; but not to break up the masses of crowded dwellings by driving thoroughfares through and across them to let in light and air, or to provide decent dwellings for the labouring classes.

October 23rd, 1866.

THE RICHARDSON TESTIMONIAL FUND.

IT will be seen by reference to our advertising columns that a considerable sum has already been subscribed towards the above fund. Dr. Richardson's claims upon the public and the profession are such as to entitle him to something like a national acknowledgment.

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—At a general meeting of the Fellows held on Oct. 17th, the following gentlemen were reported by the examiners to have passed the primary examination for the Licence:—

Charles Holte B. B. Allen, William Anderson, Albert Henry Baines, James Wm. Barry, John Bately, Frederick Henry Blenkinsop, Clement Dukes, Branford Edwards, Alfred Henry Garrod, James Frederick Goodhart, Saltern George Littlejohn.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Oct. 18th:—

De Morgan, Edward, Adelaide-road, N.W.
Kinsey, Robert Henry, Thurlow-road, Hampstead.
Mickley, Arthur George, Buntingford, Herts.

The following gentlemen also on the same day passed their first examination:—

Burford Norman, Guy's Hospital; J. A. Bevan, do.; J. B. Saundry, do.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—The following gentlemen obtained the licence in Medicine during the months of July, August, and September last:—

Anderson, D., Carlow.
Archdall, G., Bundoran.
Bastable, B., Kanturk.
Beatty, J. G., Dublin.
Beggs, J. T., do.
Benson, J. H., do.
Bolster, T., Mallow.
Brown, A. L., Boyle.
Carey, R. B., Newtownbarry.
Carre, F., Inver.
Dunn, G. N., Delgany.
Fair, C., Oughterard.
Fitzgerald, R. G., Dublin.
Harding, W. T., 2nd Batt. 19th Regt.
Healy, M., Askeaton.
Hewitt, D. B., Dublin.
Hyde, H., London.
Ireland, R. J., Galway.
McSwiney, J. (R.N.), Walmer.
Morgan, J., Rathgar.
Neary, R., Dublin.
Olden, D. L., Dungarvan.
O'Reardon, D., Ranelagh.
O'Reilly, T., Kilkenny.
Pendleton, R. W., Trim.
Ratigan, A. H., Rostrevor.
Ridley, J., Tullamore.
Rongham, G., Ballinrobe.
Watson, C., Dublin.

The following gentlemen obtained the Midwifery diploma during the same period:—

Anderson, D.
Beatty, J. G.
Brown, A. L.
Carey, R. B.
Carre, F.
Cappage, T. Largan.
Dunn, R. N.
Fair, Campbell.
Olden, D. L.
O'Reardon, D.
O'Reilly, T.
Pendleton, R. W.
Ratigan, A. H.
Saunderson, J. Edenderry.
Watson, Christopher.

DOWNING COLLEGE, CAMBRIDGE.—Mr. T. W. Danby (first in the Natural Sciences Tripos, 1864) has been appointed superintendent of the laboratory, and lecturer in Geology and Mineralogy; and Mr. J. B. Bradbury (second in the Natural Sciences Tripos, 1864) has been appointed lecturer in Comparative Anatomy and Physiology, at Downing College.

ROYAL COLLEGE OF SURGEONS OF EDINBURGH.—At the annual meeting of this College, held on the 17th inst., the following office-bearers were elected for the ensuing year:—President: Dr. J. Dunsmure. Treasurer: Dr. J. Gairdner. Secretary: Dr. J. Simson. Librarian: Dr. A. Inglis. President's Council: Drs. J. S. Combe, A. Wood, R. Omond, Mr. B. Bell, Dr. J. D. Gillespie, Mr. J. Spence, and Dr. J. Gairdner, *ex. off.* Examiners: Drs. J. Simson, R. Huie, W. Dumbreck, A. Inglis, A. Wood, R. Omond, J. Dunsmure, P. D. Handyside, J. D. Gillespie, H. D. Littlejohn, P. H. Watson, and D. Wilson. Assessors to Examiners: Dr. J. S. Combe, Mr. Syme, Mr. W. Brown, and Mr. J. Spence. Conservator of Museum and Registrar of Students' Tickets: Dr. W. R. Sanders. Officer: Mr. J. Dickie.

MEDICAL SOCIETY OF KING'S COLLEGE.—The inaugural meeting of this Society for the present session took place on Thursday evening, the 11th inst.; Spencer Watson, Esq., F.R.C.S., the newly-elected president, in the chair. Among those present were the Principal (Dr. Jelf), Dr. Johnson, Dr. Duffin, Dr. Harley, Dr. Playfair, Dr. Bentley, Dr. Symes Thompson, Dr. Kempthorne, and Mr. Francis Mason, the late president. Dr. Powles, one of the vice-presidents, read the introductory address, in which he commented on the words in which the Society sets forth its aims—viz., "the propagation of a spirit of original research and observation, and of a feeling of friendship and co-operation among those engaged in the pursuit of medical science." A vote of thanks having been passed to the principal and the professors for their attendance, and to the president for the way in which he had conducted the meeting, the proceedings terminated. This Society is one of the oldest and most successful of all those supported by students. We believe that amongst the King's College men who have attained celebrity there are very few indeed who were not in their time active members of the Society, and who do not, at the present day, retain a pleasing recollection of the advantages to be gained by belonging to it.

SYDNEY MEDICAL NEWS.—In consequence of complaints having reached the Government in reference to inefficiency in the general arrangements of the Sydney Infirmary, a commission has been appointed to inquire into the present state of the establishment and to report to the Government any recommendations that may occur to them for improving its efficiency. The commission held its first meeting at the Colonial Secretary's office on the 22nd of August.—The Rev. Wazir Beg, M.D., M.R.C.S. Eng., is lecturing on popular subjects in aid of the funds of religious institutions in Sydney.—Dr. Haynes Gibbes Alleyne was appointed an Examiner in the Faculty of Medicine of the University of Sydney at a meeting of the Senate on the 18th of July.

MORTALITY OF NEW YORK.—The deaths in the city during the present season have exceeded by 5000 those of last season.

POISONOUS SHELL-FISH.—Three persons died very suddenly last week at Glasgow after eating some Norwegian crabs. The symptoms of the illness were choleraic, but it is believed from the circumstance of other persons who had eaten some of the crabs having also been ill that there was something poisonous in the fish.

THE WEST KENT MEDICO-CHIRURGICAL SOCIETY.—The annual meeting of this Society was held on Friday evening, the 12th inst., at the Royal Kent Dispensary, Greenwich-road. The following gentlemen were appointed officers of the Society for the ensuing session:—President: Mr. David Hope. Vice-presidents: Mr. Chas. Nind and Dr. James Palfrey. Council: Dr. John Anderson, Mr. Samuel Henry Cornish, Mr. William Lockhart, Dr. John Nicholas Miller, Dr. Robert N. Mitchell, Mr. Arthur Roper, and Dr. Robert Venables. Treasurer: Dr. Prior Purvis. Secretary: Mr. James Henry Allingham. Librarian: Mr. H. W. South Sturton.

THE funeral of the late Dr. Barlow took place last Friday at Forest-hill Church. It was attended by nearly all his late colleagues as well as by a large number of students, and by Mr. Turner, the treasurer of the hospital. There were also present a numerous assembly of medical men, who expressed a most affectionate regard for their deceased friend. On that day no lectures were delivered at Guy's, out of respect to the senior officer of the hospital.

THE North British Railway Company has placed boxes at its stations in Leith for the reception of any newspapers and periodicals which travellers may feel inclined to bestow upon the hospital patients of that city. Were this excellent example followed by the London railway companies the boon to the inmates of the London hospitals would be great, and nobody would lose anything by the arrangement, save the collectors of waste paper on the railway platforms.—*Pall Mall Gazette.*

AN inquest was held last week on the body of a German governess, who died suddenly at Pimlico. On post-mortem examination a hydatid containing the ova of tape-worm was found on the right hemisphere of the brain, about the size of a small nut. The cavities of the brain contained about six ounces of serum, and six or seven hydatids were found in the fourth ventricle.

SURGICAL ACCIDENTS IN FACTORIES.—In the Reports of Inspectors of Factories for the six months ended April 30th, 1866, 2576 accidents from machinery are recorded; of these twenty-eight were fatal, and six of the fatal cases were children. Thirty children also suffered amputation of part of right hand, and twenty amputation of part of left hand. Sixteen got fractured limbs and bones of trunk; thirty-two, fracture of hand or foot; and sixteen, injuries to head and face.

SLAUGHTERHOUSES AND RAILWAY CONVEYANCE.—One of the local Acts passed in the late Session has been printed. It provides for the erection of a central railway station at Ryde, and of slaughterhouses for cattle by the company, and the imposition of tolls. In the event of metropolitan slaughterhouses being removed by an Act in the next Session, others will be built out of town, with increased facilities for sending the meat to the London markets.

THE number of persons receiving relief on the 1st of January last was in the proportion of 4·60 per cent. of the whole population. In Sheffield the proportion was 4·90; in Birmingham, 5·15; and in Wolverhampton, 4·02 per cent.

ACCIDENTAL POISONING.—An inquest was held last week in the City-road relative to the death of a girl named Alma Miller, aged about five years. It appeared that the child was the daughter of a book-finisher, who, thinking it attacked by cholera, administered at short intervals six teaspoonfuls of a medicine known as "Cox's celebrated Red Mixture." The child died the next morning, and, on examination, it was found to have been poisoned by the medicine. Dr. Letheby said that the doses given were quite sufficient to poison a child. A verdict of "Accidental Death" was returned.

A DROVE of oxen, bought at Salzburg, in Austria, and taken into the Tyrol, communicated the typhus of the steppes to some animals at Coire (Grisons) and the neighbourhood, and appear to have scattered the germs all along the road.

ABERNETHIAN SOCIETY, ST. BARTHOLOMEW'S.—This Society held its first meeting of the present session on Thursday evening, Oct. 11th. The inaugural address was given by Mr. Thomas Smith. In a very able manner he showed the value of such a society as the Abernethian, as a means of bringing forward the results of observations made by the students in the wards, post-mortem theatre, or dissecting rooms; the advantage attending the free discussion of doubtful or disputed points of medical practice, and the value of cultivating a ready manner of speech-making. He then traced its origin, now more than seventy years ago, instancing the eminent men—some living, some dead—who had been its ardent supporters, and who had first brought to the Abernethian meetings germs of subjects which afterwards developed into authorities on the question about which they had worked and written. As an illustration of what a young student Abernethian had done, Mr. Smith gave an account of the discovery of the "Trichina Spiralis," by Mr. Paget, thirty years ago, the first account of that parasite being given to the Abernethian Society. He then gave a full and excellent description of the flesh-worm, its mode of introduction into the human body, its passage through the alimentary canal, and its final lodgment in the muscles. He also gave an account of the symptoms of trichinous disease in man, and alluded to its treatment. Numerous specimens of trichinæ were placed under the microscope. The attendance of members was good, and after a few remarks from some old Abernethians, encouraging the new students to enrol themselves in the ranks of the Society, the meeting separated. The following is the list of officers of the Society for the ensuing session of 1866-67:—Presidents: Dr. Warter (since dead) and Mr. Vernon. Vice-Presidents: Messrs. Bloxam, Moore, Batt, and Heelas. Treasurer: Mr. Paget. Committee of Audit: Messrs. Kemp, Ellis, and Smith. Honorary Secretary: Mr. R. A. Coombs.

GLASGOW FACULTY OF MEDICINE.—At a meeting held on the 5th inst., the following gentlemen were elected office-bearers for the ensuing year:—President: Dr. H. Thomson. Vice-president: Mr. J. M'Carron. Treasurer: Mr. J. M'Innes. Secretary: Dr. T. Lapraik. Librarians: Messrs. G. M'Ewen and J. R. Buchanan. Seal-keeper: Dr. Jas. Scanlan. Vaccinators: Dr. J. Coats and Mr. J. Mullan. Directors: Mr. A. Morton, Mr. A. M'Farlane, Mr. A. M. Robertson, Dr. R. Cowan, and Mr. D. Calderwood. Factor: Mr. J. Donald. Officer: Mr. J. Mitchell.

MEDICAL APPOINTMENTS.

H. ARNOTT, M.R.C.S.E., has been appointed Surgical Registrar to the Middlesex Hospital.

G. BROWN, M.D., has been appointed Medical Officer for District No. 2 of the Colchester Union, vice D. P. Morris, M.R.C.S.E., resigned.

W. CAYLEY, M.D., M.R.C.P.L., has been appointed Medical Registrar to the Middlesex Hospital.

J. CLARKE, M.D., M.R.C.P.L., has been appointed Obstetric Physician to St. George's Hospital, and Lecturer on Midwifery, vice Robt. Lee, M.D., resigned.

H. M. COCKERTON, M.R.C.S.E., has been appointed Surgeon to the County Gaol, Montgomery, vice J. P. Wilding, M.R.C.S.E., resigned.

C. J. COVERNTON, L.R.C.P.Ed., has been appointed Medical Officer and Public Vaccinator for the Beguildy District and the Workhouse of the Knighton Union, Radnorshire, vice H. Warren, M.R.C.S.E., deceased.

L. DE ZOUCHE, M.D., has been appointed a Resident Medical Officer at the Workhouse, Liverpool.

J. C. DUKE, M.R.C.S.E., has been appointed Medical Officer for the Lewisham District and the Workhouse of the Lewisham Union, vice H. Stott, M.R.C.S.E., resigned.

Dr. EASTLAKE has been elected a Fellow of the King and Queen's College of Physicians, Dublin.

A. HAMILTON, L.R.C.P.Ed., has been appointed House-Surgeon to the District Infirmary, Ashton-under-Lyne, vice J. H. Armstrong, M.R.C.S.E., resigned.

W. A. HARVEY, M.B., has been appointed Medical Officer and Public Vaccinator for District No. 3c of the Langport Union, Somersetshire, and Registrar of Births &c. for the South Petherton District of the Yeovil Union, vice W. Harvey, M.R.C.S.E., deceased.

A. HODSON, M.D., has been elected Medical Officer, Public Vaccinator, and Registrar of Births &c., for the Broadway Dispensary District of the Wexford Union, vice P. S. Waddy, M.D., deceased.

T. G. HORDER, M.R.C.S.E., has been appointed House-Surgeon and Local Secretary to the National Sanatorium, Bournemouth, vice W. J. Wane, M.R.C.S.E., resigned.

J. L. JARDINE, M.R.C.S.E., has been appointed Surgeon to the Village Hospital, Capel, Surrey.

G. A. KENYON, L.R.C.P.L., has been appointed Assistant to the Obstetric Physician, St. George's Hospital, vice Barker, resigned.

R. MILES, L.R.C.P.Ed., has been appointed Medical Officer for the Town District of the Merthyr Tydfil Union, vice T. J. Dyke, M.R.C.S.E., resigned.

E. S. ROBERTS, M.R.C.S.E., has been appointed Superintendent of Quarantine on the River Humber, vice R. Hardy, M.R.C.S.E., deceased. Mr. Roberts has also been appointed Medical Officer to the Hull Board of Health.

G. SANKEY, M.R.C.S.E., has been appointed Surgeon to the West Kent General Hospital, vice Mr. F. Fry, resigned.

G. S. SMITH, L.R.C.S.Ed., late Resident Medical Officer of the Royal Hospital for Sick Children, Edinburgh, has been appointed Resident Medical Superintendent of the Cholera Hospital, Forrest-road, Edinburgh.

J. M. TAYLOR, M.D., has been appointed House-Surgeon to the North Staffordshire Infirmary, Etruria, Stoke-upon-Trent, vice Wm. D. Spanton, M.R.C.S.E., resigned.

Births, Marriages, and Deaths.

BIRTHS.

On the 26th ult., at New Wimbledon, Surrey, the wife of Arthur Goullet, L.R.C.P.L., of a son.

On the 17th inst., at Harley-street, Cavendish-square, the wife of A. B. Garrod, M.D., of a daughter.

On the 18th inst., at Beomond, Chertsey, Surrey, the wife of T. A. Chaldecott, M.D., of a son.

On the 19th inst., the wife of J. D. Swallow, M.D., of Kennington-park-road, of a daughter.

On the 20th inst., at York-street, Cheetham, Manchester, the wife of R. W. Ledward, M.D., of a daughter.

MARRIAGES.

On the 16th inst., at St. Saviour's, Upper Chelsea, J. B. Scriven, Principal of the Lahore Medical College, to Gertrude Margaret, daughter of A. Leggatt, Esq.

On the 16th inst., at Trinity Chapel, Ravensbourne-park, Lewisham, Charles Read, Surgeon, of Tillingham, Essex, to Margaret, daughter of James Lawrie, Esq.

DEATHS.

On the 31st of Aug., at Bathurst, River Gambia, of yellow fever, Staff Surgeon George Calvert, aged 30.

On the 19th inst., at the Royal Military Hospital, Phœnix-park, Dublin, Thos. Quinlan, M.D., Assist.-Surgeon 1st Dragoon Guards, aged 32.

On the 19th inst., at Athlone, Dr. M. Fallon, aged 66.

On the 20th inst., at Wellington-road, Dublin, J. C. Carter, M.D., Inspector-General of Hospitals.

On the 22nd inst., Geo. Evans, M.R.C.S.E., of Gloucester-place, Portman-square, late of the Hon. East India Co.'s Bengal Service, aged 62.

BOOKS ETC. RECEIVED.

Dr. Broadbent on Cancer.
Mr. I. B. Brown, on the Surgical Diseases of Women.
Dr. W. Murray on Emotional Disorders of the Nerves.
Dr. W. Evans on the Antiseptic Treatment.
Statuts et Programme au Congrès Medical International de Paris.
Dr. Beatty's Contributions to Medicine and Midwifery.
Bericht des Vorstandes des Hülfsvereins für Kranke und verwundete Krieger in Frankfurt-am-Main.
Dr. Lee on Animal Magnetism.
&c. &c. &c.

To Correspondents.

Trowbridge.—We think the Judge in the case of Highmore v. the Guardians of the Bradford Union not only acted with propriety, but that his suggestion, under the circumstances of the case, was the wisest one to carry out. We cannot, however, help remarking that we think the guardians acted in a shabby manner by founding their resistance to what appears a just claim, upon a mere technical point of law. It would be improper to prejudge the *case sub judice*; but it is always to be regretted that disagreements between medical gentlemen and boards of guardians should arise on so slight a foundation as there apparently is in this case.

Dr. Harris.—The preparations of the late Mr. Toynbee are in the possession of the College of Surgeons.

THE communications of *Mr. W. Travers* and *Mr. F. H. Lovell* shall shortly appear.

O. P. A.—It would be improper, if not illegal, to use methylated spirit for such a purpose. It might enter into the composition of *external* applications.

A Young Practitioner.—The fee should not exceed two guineas.

DR. RICHARDSON'S APPARATUS.

To the Editor of THE LANCET.

SIR,—Perhaps you will kindly allow this letter a place in your columns, as the striking facts I have to record warrant the necessity of great precautions in the employment of the above instrument for the extraction of teeth.

I have used Dr. Richardson's spray-producer for some little time, and can cheerfully testify to its beneficial aid in minor surgical operations, especially dental, in no case occasioning the slightest pain, with the exception of a solitary eye-tooth, whose body was twisted, and whose fangs were curved. The instrument I have used by day-light and gas-light, with no danger attending till the other evening, when the fright which patient, attendant, and myself experienced determined me to operate by day-light only.

A gentleman calling to have a tooth extracted, I proceeded in the usual way. Having applied a small piece of cotton-wadding over the tongue, with the view of protecting it from the fluid which I was about to direct upon the upper jaw, I commenced business. I should say that in *every* preceding instance I have used a candle, to throw a better light into the mouth. This is held by the assistant not nearer than half a yard from the seat of operation. In this case it was done also. And now comes the terrible scene. I had scarcely used the ether (pure rectified) for twenty seconds, when suddenly a volume of flame rushed from the patient's mouth, enveloping the three of us for a single instant. It was so soon over that the patient had not time to rise from his seat, and the assistant and myself remained in our former positions. There was no explosion; all was quiet. After regarding each other for a few moments, I ventured to inquire of the patient how he felt. I was happy to see a smile, rather ghastly nevertheless, illumine his pale countenance; but his only answer was, "What a wonderful occurrence!" There was no smell of scorching; the only injury sustained being a slight singeing of the more prominent hairs of his moustache. The assistant and myself were untouched. This was certainly an unexpected and terrible occurrence, though fortunately unattended by any untoward result. The patient's complexion was of a healthy, ruddy colour on sitting down for operation; but this soon gave place to a ghost-like pallor; and when I beheld the flames gushing forth from his mouth, I almost believed it was a veritable fire-demon sitting before me. He certainly did not look ethereal. The only unpleasant feeling he experienced was a sense of constriction round his neck. He is nothing the worse for it; in fact, better, as he has not felt a twinge of toothache since.

Now, Sir, cases like these are not to be made *light* of. The cause of the mischief might be attributed to the candle. If so, then why did the same effects not ensue in preceding instances, as the same precautions were adopted? I should esteem it a favour to be informed if any rules are laid down for operating in gas-light, as till then I shall be obliged to desist.

Yours very truly,

October, 1860. S. E. K.

Lithotomist.—Mr. Elliott, of Chichester, performed lithotomy three times on the same patient. The late Dr. Scott, of Southsea, was the first in this country to practise œsophagotomy, and was successful. Mr. Cook subsequently performed the same operation.

T. J., M.D.—There is no rule in the matter. Offence should not be taken by either party.

M. P. had better address his inquiries to the master of the College to which he alludes.

Constant Reader.—The pamphlet is thoroughly disgusting.

Assistant is, we think, unnecessarily indignant at the conduct of a "qualified medical man."

Mr. Morrison.—The lectures had better be sent in their complete form.

SULPHUR IN DIARRHŒA AND CHOLERA.

To the Editor of THE LANCET.

SIR,—Will you kindly allow me space in your valuable journal to recommend sulphur in epidemic diarrhœa and cholera? I have tried it in more than 100 cases of epidemic diarrhœa, and in five cases of what I may term choleraic diarrhœa or English cholera, with complete success; and in several of the cases, when all other remedies had failed, I gave the sublimed sulphur in doses from a drachm to a drachm and a half, with a little aromatic, in mucilage, every two or three hours. I feel confident that those who will give it a trial—ridiculously simple though it may seem—will be more than satisfied with the result, and I have many reasons for believing that sulphur will be found to be the great antidote and preventive of epidemic diarrhœa and cholera.

Yours faithfully,

Bromsgrove, October 20th, 1860. R. PROSSER.

Enquirer.—The Registration Act does not make it illegal for a medical practitioner to refuse a certificate of the death of a person he has attended, and there is no penalty attached to his demanding and receiving a fee for such a certificate. It was understood on the passing of the Act that the members of the medical profession would assist the Registrar-General in making his reports complete. We believe exceptions to this rule are few. It is not only an ungracious, but an unwise act to refuse to give a certificate unless it be paid for.

A Collector.—Good impressions of Sharp's engraving are rare.

TREATMENT OF CHOLERA BY THE COLD DOUCHE.

To the Editor of THE LANCET.

SIR,—Amongst the many remedies in cholera recommended by your correspondents, I do not recollect any mention being made of the cold douche. I first heard of this plan of treatment being successfully adopted by Surgeon-Major Seaman, late of the 72nd Highlanders, when that regiment was quartered in Poona. Having had some cases of cholera in my own hospital at the time (the general depôt), in the same station, I resolved to try it. Out of four cases two only recovered, the others having succumbed in the third stage. In three cases of natives, two of which were my own servants, I tried this treatment, and all recovered; these latter, though slight, were all cases in the collapsed stage. In the cases of three men of the 109th Regiment, to which I was attached last year at this station, the douche was tried by me, and all recovered. The patient, being stripped, is placed in a semi-recumbent posture in a large bathing-tub, and six or eight gallons of cold water (salt or fresh) poured over him from a slight elevation. During this operation, which lasts about a minute, the patient usually gives two or three gasps. He is then taken up rapidly, and carelessly dried and wrapped in blankets, as is done in the cold-sheet treatment, put to bed, and in about a quarter of an hour he is found bathed in perspiration, and reaction mildly establishes itself. In all cases the patients expressed themselves very much relieved by this plan. The advantage it possesses over the cold sheet, I think, lies principally in the shock given by the water, which acts on the nervous system, and rouses the patient from the semi-lethargic state in which cholera patients usually are. If diarrhœa continues, I give dilute sulphuric acid in doses of fifteen or twenty minims with some vegetable astringent; and I have reason to believe that I have warded off many cases of collapse by the use of this acid, in what I believe to be the first stage, the so-called premonitory diarrhœa. I always allow my patients to drink soda-water, water, ice, or warm tea, as they fancy, and seldom have to resort to stimulants.

Your obedient servant,
CHAS. MACDONAGH CUFFE,
Aden, Arabia, Sept. 27th, 1866. Staff Assistant-Surgeon.

Dr. John Knox, (Bakewell.)—It is unprofessional for a practitioner who is a public vaccinator to encroach on the private practice of a professional brother. From the complaints we receive, we fear the practice is too common.

Fiddle, (Watford.)—Sir W. Fergusson, Mr. Paget, Mr. Solly.

L.R.C.P.—See the Students' Number of THE LANCET, Sept. 15th, page 298.

TREATMENT OF HERPES ZOSTER.

To the Editor of THE LANCET.

SIR,—I wish some of your numerous readers would have the kindness to inform me of a remedy that would alleviate the pain which remains after the disappearance of herpes zoster. In a case lately under my care, every known form of treatment was tried without success. Yours truly,
October 18th, 1866. MEDICUS.

A Volunteer Surgeon.—The celebrated Sydenham in early life left Magdalen Hall, Oxford, to serve in the Parliamentary army.

H. W. C., (Oxford.)—Dr. Owen Rees, Albemarle-street.

MEDICAL ASSISTANTS AND THEIR CARTE DE VISITES.

To the Editor of THE LANCET.

SIR,—Is it the custom of persons advertising for assistants to request their carte de visites under the pretext of judging of their freedom from bodily defects, or in reality to obtain a collection for their own private album? from which circumstance one would be led to think they were deficient in friends who could supply them with this necessary article of amusement "gratis."

I have been led to make these remarks from answering an advertisement as long ago as the 6th instant, sending my carte de visite according to desire, but at the same time stating I wished it to be returned, which has not been done.

Enclosing my card, and hoping you will give this publicity to warn future unwary assistants, I am, Sir, yours, &c.,
October, 1866. ONE WHO HAS BEEN GULLED.

Pecus.—General Nursing Institute, 5, Henrietta-street, Covent-garden; Institution of Nurses, North Audley-street, Grosvenor-square.

Etiquette.—There is no possible objection to it.

A Reader, (Aberdeen.)—Erasmus Wilson on the Hair.

NOISES IN THE EARS.

To the Editor of THE LANCET.

SIR,—I should be glad to ask some of your medical readers, through the medium of your columns, a means of combating a constant noise in the ears, first experienced a year ago after a recurrent attack of brain fever. The ears have been well syringed, without any amelioration of the unpleasant symptom. The patient is a young lady, otherwise in tolerably good health, and free from hysterical symptoms. The noise has occasionally increased in intensity, and been accompanied with diplopia, giddiness, and distressing mental visions. From this she has been accustomed to obtain relief by resorting to a large blister to the nape, the other symptoms being by this means relieved; but the noise—a rushing sound of water, clacking of a mill, &c.—has remained unaltered. Faithfully yours,
Boloemdeu, October 24th, 1866, T. J., M.D.

C. S. R.—The circular is most objectionable and unprofessional, and it is doubtful whether it will not defeat the very object which Mr. B. seeks to obtain. The assumption of the title of "Surgeon" by a person registered under the Medical Act, whatever his qualifications may be, is not clearly an illegal act. Lawyers of eminence differ as to the construction of the 40th clause; and as that clause is a penal one, it will be interpreted by the judges in the strictest possible manner.

A Metropolitan Teacher.—There is an increase in the number of students this session over the last.

ERRATUM.—In the letter of our Edinburgh correspondent published in our last number, the term "worn-out," in reference to the castor-oil treatment of cholera, was a misprint. It should have been "evacuant."

COMMUNICATIONS, LETTERS, &c., have been received from — Mr. Hilton; Dr. Wilks; Dr. Latham; Mr. Parkinson; Mr. Beckett; Mr. Ashe, Bedford; Mr. Verryer; Mr. Pitman; Mr. Bond, Manchester; Mr. Whalley, Lincoln; Dr. Knox; Dr. Richard; Mr. Woolley; Mr Robson; Mr. Toller; Mr. Sly; Mr. Burnett; Dr. Duckworth; Dr. Ashley; Dr. Williams, Lindfield; Dr. Bäumler; Mr. Hardy; Mr. Davies; Mr. Egan; Dr. Brewer; Mr. Watts; Mr. Mead, Whitby; Mr. Byers; Mr. Poole; Mr. Warner, Lyme; Dr. Harris; Dr. Simpson; Mr. Neustetel; Dr. Hirsch, Mayence; Mr. Brookes, Durham; Mr. Shooter; Dr. Eastlake; Mr. Hilder; Mr. Hughes; Captain Russell; Dr. Lapraik, Glasgow; Mr. W. Skeye; Mr. Keyworth, York; Mr. Parker; Mr. Cavendish, Oxford; Mr. Edgill; Mr. Burgess; Mr. Grafton; Dr. Priest; Dr. Clark, Adelaide; Mr. Morrison; Mr. Hawkins; Mr. Bolton, Burmah; Mr. Cuffe, Aden; Mr. Waters, Tubbermore; Dr. Kelly, Calcutta; Mr. Wilby; Dr. Powell; Mr. Prosser, Bromsgrove; Mr. Bennett; Mr. Wilson; Mr. Grant; Mr. Mac Nay, Saltburn; Dr. Lindsay; Mr. Cumming, Windsor; Mr. Tyler; Mr. Sankey, Maidstone; Mr. Watkin; Mr. Edgerton; Dr. M'Nab, Leeds; Dr. Stewart; Dr. Hayward; Mr. Bell, Armagh; Dr. Peacocke, Trinidad; Mr. Wray, Boston; Mr. Patrick; Mr. Rogers; Mr. Robertson, Edinburgh; Mr. Morgan, Ruabon; Mr. Travers; Mr. Holmes; Mr. R. E. Thompson; Dr. Duke; Mr. Malins, Cork; Mr. Parkin, York; Dr. Griffith, Camberwell; A Reader, Aberdeen; A Young Practitioner; Mutatus; A Constant Reader; C. N. B.; A Reader of THE LANCET; T. P. Q.; Assistant; M.D., Birmingham; H. M.; W. S.; R. Y.; T. J., M.D.; Fiddle; Nemo; L.R.C.P. Edin.; The West Kent Medico-Chirurgical Society; Dispenser; J. C.; Inquirer; M. P.; S. E. K.; R. S.; The Rivers Commissioners; Medicus; C. L. R.; &c.

THE *Lincolnshire Chronicle*, the *North British Daily Mail*, and the *Trowbridge Chronicle* have been received.

Medical Diary of the Week.

Monday, Oct. 29.

ST. MARK'S HOSPITAL FOR FISTULA AND OTHER DISEASES OF THE RECTUM.—Operations, 9 A.M. and 1½ P.M.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
MEDICAL SOCIETY OF LONDON.—8 P.M. Mr. Henry Lee, "On the Treatment of Aneurism by Acupressure."

Tuesday, Oct. 30.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
GUY'S HOSPITAL.—Operations, 1½ P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 3 P.M.

Wednesday, Oct. 31.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.
LONDON HOSPITAL.—Operations, 2 P.M.

Thursday, Nov. 1.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 1 P.M.
ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
LONDON SURGICAL HOME.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
HARVEIAN SOCIETY OF LONDON.—8 P.M. Dr. T. Ballard, "On Epistaxis and its Treatment, with Cases."

Friday, Nov. 2.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
WESTERN MEDICAL AND SURGICAL SOCIETY OF LONDON.—8 P.M. Practical Evening for the Narration of Cases.

Saturday, Nov. 3.

ST. THOMAS'S HOSPITAL.—Operations, 9½ A.M.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 1½ P.M.
ROYAL FREE HOSPITAL.—Operations, 1½ P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.